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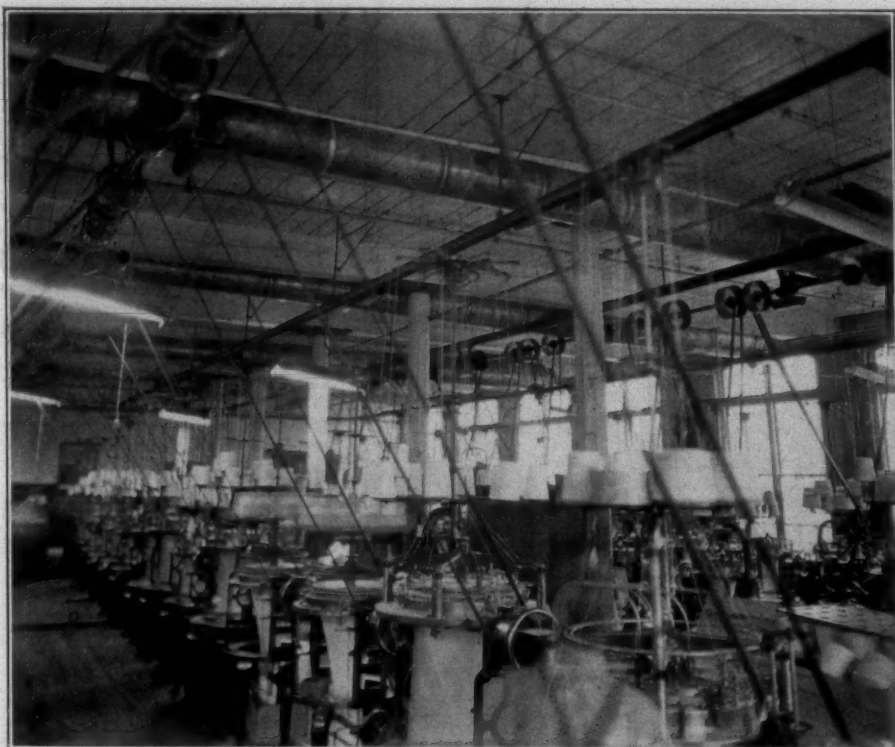
# TEXTILE BULLETIN

VOL. 43

CHARLOTTE, N. C., NOVEMBER 10, 1932

No. 11

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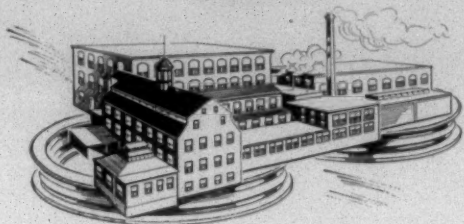
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# SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 118 WEST FOURTH ST., CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MAR. 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MAR. 2, 1897

VOL. 43

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## Master Mechanics Meet At Spartanburg

THE MASTER MECHANICS DIVISION of the Southern Textile Association met last Friday at the Franklin Hotel, Spartanburg, S. C. Although the attendance was not as large as usual, a number of men took part in a very interesting discussion regarding mechanical and electrical subjects.

The discussion was conducted by E. P. McWhirter, chairman of the Division, and was as follows:

We shall discuss first "Which is the most economical in building up worn cast journals, cast or bronze? Worn iron or steel journals, steel or bronze? Electric welder only, or acetylene?" There are several questions there, in one. Which is the most economical in building up worn cast journals?

R. E. West, C.E., Master Mechanic, Arcadia Mill, Arcadia, S. C.: I find that bronze, in my case, is the best all the way around. It is a little bit harder than cast iron; I find I can work it better, and believe it lasts just about as long. That is on cast journals. On iron or steel I think steel is cheapest. I use the electric welder.

W. G. Young, Master Mechanic, Wiscasset Mills Company, Albemarle, N. C.: I would say for cast-iron journals cast iron would be most economical. If you apply it to another journal, of course that brings up another question. If you apply it to cast iron alone, the cost of cast iron would not be above twenty per cent of what bronze would be. If you have a man that can do the welding, cast iron would be far cheaper and equally as good. There might be some cases where you just want to touch up a worn spot, where contraction enters into the matter—expansion and contraction, and of course it requires much less heat to build it up with bronze. It might be more economical from that standpoint. But, from a general standpoint, I would say on cast journals cast iron would be the cheapest—considering, of course, that your welder is able to build up a job that you can machine. If you should get a job that you could not machine, of course that is money wasted.

So far as steel journals are concerned, there is no comparison between the cost of acetylene and electric welding. We have both. The cost of operating an electric welder is practically nothing, so far as power is concerned. As to a welding rod, I think you pay around fifteen cents a pound for it. We have the A. C. type of welder and have to use the flux rod. It costs hardly anything except the man's time to build up steel journals, but we have found the electric welder for cast iron—well, it is not worth anything. For my part, I would not give

a darn for all the electric welders in the world for cast iron. For steel there is no comparison at all between the electric welder and the acetylene welder for building up steel.

Chairman McWhirter: You are speaking of building these journals with an acetylene welder altogether?

Mr. Young: That is cast iron. But for steel by all means electric welding, if you are equipped to do that.

H. H. Iler, Mechanical Engineer, Union Bleachery, Greenville, S. C.: Mr. McWhirter, I am bound to agree largely with what Mr. Young has said there concerning the economy of building up cast journals. I do not think there could be any question about the greater cheapness of cast iron rods as compared with bronze rods; and so far as steel journals are concerned, I agree again with him that electric welding is much more preferable for building up rather than acetylene. I do not agree with Mr. Young altogether concerning the electric welding on cast iron, because I have seen some jobs that were very, very difficult with acetylene that were built up very satisfactorily with electric welding—for instance, broken spokes in gears, or pulleys. You would certainly have to preheat there if you used the acetylene outfit.

Mr. Young: I wish to add that Mr. Iler is exactly right about that. There are cases where we use the electric welder on cast iron successfully, such as spokes. But after all, after you have welded a cast iron spoke with an electric welder, it is only a makeshift. For cases like that, broken pulley rims and spokes, it is a great help. We do get by with it, but we don't call it a real welding job.

Mr. Iler: Mr. Young is right about that. I would not contend that a welded job on cast iron is a real weld. I did this; I had some hundred pieces of cast iron welded up, and then I proceed to break those things on a hydraulic press, to see the strength required to break them. In many cases I broke new parts exactly like the welded ones. In no case did we find that the welded part required as much pressure to break as did the new part. In most cases the breaks occurred on one side or the other of the weld; occasionally in the weld itself; but I would say in ninety-five per cent of the cases the break occurred on one side of the weld or the other; and our conclusion was that in welding that with the electric arc the intense heat had reduced some kind of change in the iron, just what we do not know, but at any rate it weakened it at those two points.

Mr. Young: That is just my experience.

Chairman McWhirter: It seems that most of you are

agreed that using cast iron is the most economical way of building up cast iron journals.

I should like to say a word on the electric welder; I have been using one for a good while. I find that building cast iron with cast iron rods, with the electric welder, there is no way to machine it. Recently the General Electric people mailed me a sample bunch of steel, and I used that steel in welding loom frames, to try it out. It worked successfully, and you can machine it to a certain extent. That is the only steel I have found yet, in all my electric welding, that I would be able to work. Of course, it is a little hard. It absolutely welds the loom frame and holds.

Chairman: Our next question is: "Does it pay a mill of 15,000, 20,000 or 30,000 spindles to reneck its own steel rollers?"

#### RENECKING STEEL ROLLS

Mr. West: We do not do that at Arcadia, where we have about 58,000 spindles. I put in that question to see if anyone did reneck their own rollers up to 30,000 spindles and if it pays to do it. I should like to find out something about it.

Mr. West: If you find that the neck is worn the hole that it goes in is worn; the square is worn. You can make the square perfect and have it work tight, but it would not be long until it worked loose again.

Mr. Young: We have had a good deal of experience along that line, especially with those worn squares that you are talking about. You will find more of that among case-hardened rollers than you do the soft rollers. Whether it will pay a mill to reneck its own rolls or have it done outside, is that question?

Mr. West: Yes.

Mr. Young: Our mill does not think it pays to have them renecked at all; we simply throw them away and buy new rollers. I have had a good deal of experience in renecking rollers, in other places. About that worn-square business, there is a tool gotten out for straightening up those squares, and it is an absolutely perfect tool, too. In other words, it is a drill for drilling a square hole. We have one, and it cost about \$65. You can increase the size of that hole one-sixteenth of an inch and take all that worn place out. Of course, these case-hardened rollers call for annealing, but you can get a good job. I never have thought that people could reneck rollers outside of the mill shop at the price they charge and do a first-class job, and I still don't think that. I think if they did they would lose money. We renecked at the present mill a lot of rollers, and then quit it and bought new ones, and I have done a lot of it at other places I have worked. I have never been able to reneck them and do a proper job and use satisfactory material for anything like seventy cents a neck. These outsiders charge you from seventy to ninety cents a neck to reneck rollers. How they do that and do a first-class job I don't know, because usually they pay their men more than we do our men in the mill shop, and have their overhead and all of that. The material in that neck, if they use the proper material, will cost a large part of that seventy cents. When we renecked rollers in my present mill my boss man would not allow me to use anything but old steel rollers. If we had to buy the steel, a large part of that seventy cents would go in the neck before you do anything to it. It is a question in my mind, unless your shop is mighty well equipped, whether it is not better to have it done outside. If these outside fellows will do a satisfactory job for about seventy cents, I think it is better to have it done outside, unless you are mighty well equipped and prepared to do it, and can keep a man on it. The average cotton mill

shop puts a man to renecking rolls one hour, and the next hour he is making twist gear. To reneck rollers well, a man has to be on the job continuously. The average cotton mill shop has not men enough or machinery enough to take a machine off, or a couple of machines, and put a man on rollers and keep him at it. If they could manage to do that and had equipment, they might compete with the men outside; but I don't think the average mill shop can reneck rollers for anything like seventy cents a joint and do a first-class job.

#### MILL SHOP SHOULD RENECK ROLLS

L. W. Misenheimer, Engineer, Southern Bleachery, Piermont Print Works, Taylors, S. C.: I feel that where you are equipped to do that work in the mill you can do it cheaper than you can get it done outside. In one plant I had charge of at one time we had forty thousand spindles. I hired an extra man to reneck those rollers, and we bought a special renecking steel. When that man started to work on that steel, he had never renecked a roller in his life, though he had done other shop work. I put him on steel roller work and kept him on that until that job was completed. In a few weeks' time he was renecking twenty-eight rolls a day, running the milling machine and the lathe. We renecked those rollers for forty-two cents a neck. That was in 1915, and I have been told that part of those necks are still good. We had had outside people reneck them before and decided we could do it cheaper. We used a higher grade of steel than they did, and in that instance it cost us sixty-seven cents a neck to reneck steel rollers. I believe if a man is equipped to do it and will get the proper steel he can reneck a steel roller cheaper than they can and make just as good a job. You can get the right material and get it in the size you need. If you take an old steel roller, you have to do a lot of work to get it down to the proper size. It is my opinion there is no mill that can not do it cheaper than it can be done on the outside, if you have the equipment.

Mr. West: Do you think it would pay to buy a milling machine and other equipment for this sized mill?

Mr. Misenheimer: If you get the tool Mr. Young was speaking about you can cut them just as well as they can. Take that new process; you can get a tapered drive to fit. We can do it just as well as the machinery builders, if we have the equipment, and just as cheaply.

Chairman McWhirter: I am going to be on the opposite side from Mr. Young. I have been fooling with this thing a good many years. I can show you some three or four mills in which I know the steel rollers are still running that some of the journals were put in fifteen years ago. Every time we overhaul we are constantly taking out rollers that were renecked in a certain town not so far away from here. I have a man there who, when we start overhauling, does not do a thing but reneck steel rollers. We can reneck them for forty cents and do a much better job, and the boss spinner likes them very much better. We use a good grade of steel, just about the right size, and cut the squares in the milling machine—automatic milling machine. It cuts two sides at once, then turns over and cuts the other two sides. It does not take a man to run it; all you have to do is to turn it over. I believe I can do it better than the other fellow. If we could get it in our heads that we can do in our shops what any other fellow can do, in Charlotte or Greenville, then the manager of the mill will get it in his head that the textile shop is worth something.

All the master mechanics in the house that reneck their steel rollers hold up their hands. (Four.) All that do not hold up their hands. (Seven.) So the majority of you send your rollers off.



How many of you are equipped for renecking steel rollers? If you have a milling machine and a lathe and a boring machine you can do it. (Seven.) Here are seven men equipped for renecking their own steel rollers. We will take the question: "Does it pay any mill of 20,000 or 30,000 spindles to do it?" Mr. Misenheimer?

Mr. Misenheimer: I still say if he is equipped to do it, it does pay.

Chairman McWhirter: I say this, if a mill has a hundred thousand spindles and a lathe and a milling machine, it can save money by renecking its own steel rollers. My experience has been that if it has 20,000 spindles and a milling machine and a lathe it can still save money.

Mr. West: What if he has to buy that machine?

Chairman McWhirter: I will say this in answer; a shop without a milling machine is not an equipped shop. There are a hundred other things you can do on a milling machine; you would not use it only for renecking steel rollers.

#### COST OF RENECKING

Mr. Young: Just how do you figure that cost, Mr. Chairman? You say you reneck them yourself for forty cents a neck. Do you figure in any overhead on that, or just the steel and the man's time? Do you figure anything for power and for wear and tear of machinery? Do you figure any part of your salary on that, and part of the bookkeeper's salary, and all that? That goes into the cost of renecking that roller. There are many other things that enter in that sometimes are not put in as real costs.

Mr. Misenheimer: The overhead does not increase, as I see it, a penny if you do it in your shop or if you send it outside. If you send it outside you should figure in this overhead—my salary and your salary, the bookkeeping and office expense and all that; figure that in whether you send it out or do it yourself.

Chairman McWhirter: When you pay your freight and your transportation charges and the overhead of the outside shop you have offset that at home. Therefore keep a correct account of your steel and your man's time and the little power, and then the freight and these other things will take care of that overhead.

Let's come to some conclusion on this and decide whether it is cheaper to reneck them at home or send them off. How many say it is cheaper to do it at home? (Twelve.) Those who say it is cheaper to send them off, raise your hands. (Two.)

#### CARE OF MOTORS

We will now take up the next question: "Should the overseers of the various departments be responsible for oiling and cleaning motors, or should this work be done by the electrical department?"

Fred Tindall, Master Mechanic, Inman Mills, Inman, S. C.: I think the electrical department should be responsible.

Mr. Iler: I agree with him. I have had the same experience.

J. C. Hewett, Master Mechanic, Whitney Mill, Whitney, S. C.: Since the electrical department took it over we have had only one little  $\frac{3}{4}$  motor to go wrong—in five years.

W. E. Bragg, Mechanic, Joanna Cotton Mills, Goldville, S. C.: I think the master mechanic of all mills should have charge of the motors, of the cleaning and oiling and the upkeep of them.

Mr. Young: I used to spend a lot of money in my department for the electrician and helper to personally oil all the motors and clean them. I thought it was ab-

solutely necessary (and it was, at that particular place), but if you put the right pressure on the overseer and get the right kind of overseer I find it is not necessary. I have five times as many motors now as ever before, and each overseer of a department is absolutely responsible for the oiling and cleaning of every motor in his department. To give you some idea of what the maintenance is, we have 96,000 spindles, and we employ one electrician—and we wind our own motors. He does the winding on the majority of the motors. I would say in the last two years we absolutely have not had a failure for lack of oil.

G. A. Winecoff, Master Mechanic, Ebird Manufacturing Company, Albemarle, N. C.: Our overseers look directly after cleaning and oiling the motors. We have 450 motors in our place, and we have had about three motors go down for lack of oil in the last two years. We have only one electrician. It is impressed on the overseers that they must keep them cleaned and oiled. I find we get as good service from that, or better, as from having one man to look after them.

Mr. West: I have a man look after them in each mill—we have two mills there. I have a man in each mill responsible for the motors—that is, for the oiling and cleaning.

I should like to ask if there is anyone here who washes the motors out and then uses insulating varnish on them after they are washed.

Mr. Tindall: We wash our spinning motors out once a year and revarnish them.

Mr. Melton: Our electricians take care of the motors and journals and are held responsible for them.

W. V. West, Master Mechanic, Victor-Monaghan Company, Greenville, S. C.: I would rather do my own oiling and cleaning; I have had a lot of trouble at times from depending on other people. I have my motors oiled and cleaned and gauged once a week. I think that ought to be brought in. I do not know when I have lost a motor on account of oil; it is always some other trouble. As a fact, I cut out the motor trouble when I took care of the oiling and cleaning myself.

Chairman McWhirter: It seems the majority look after their own motors; in other words, they are under mechanical supervision.

We have somewhere between eight and nine hundred motors, or probably more than that. I have about 103,000 spindles under my supervision. I have an electrician, and he has a helper, and this helper oils every motor. He blows every motor. I have a helper there in the shop, a colored boy, who blows and cleans the motors every Saturday. We have been mighty successful with our motors. I can not remember when we have lost a bearing. I really believe that motors and things like that should be under the mechanic in the electric department, for, if the motor breaks down, who is going to take care of it? If it is for lack of oil, you have an uproar there, and it will probably go to the superintendent. If your own man is responsible for it, then it does not go very far. We gauge our motors, too.

Chairman McWhirter: All that believe it is best for the master mechanic to have in his charge all the electrical motors raise their hands. All opposed signify it by the same sign. The majority seem to think that the master mechanic should do it.

#### TYPES OF DRIVES

We left off Question 1 a while ago: "Where a mill is mechanically driven, which is the more economical, belt or rope drive? If electrically driven, which is better, chain or V belts? Which is the best in the weave room—one, two, or more looms on a drive? In the spinning

room—one, two, or four frames? In the card room—one, two, or four frames?"

We have with us today Mr. Hanson, who is going to speak on "The Results of Mechanical Research with Regard to Drives." I shall ask Mr. Hanson to address us now.

### The Results of Mechanical Research With Regard to Drives

(V. A. Hanson, Machinery Manufacturers' Research Association, New York City.)

We have made quite a number of studies on power transmission, though most of them, unfortunately, have been out of the textile industry. We are working in the textile industry, but as we have been here only about a month we have not nearly as much material as we should have. I shall, however, discuss some of the material we have already obtained.

There is an enormous loss in power transmission and in power in the various types of drives in use today. The cost of operating machines has been permitted to pyramid practically unchecked. The reason for this seems to be lack of real knowledge. One of you gentlemen mentioned a while ago that when we enter into the matter of costs there are many things to be covered in that figure, and there seems to be lack of real knowledge of the costs in drives. When talking with a consulting engineer recently he described to me, with pride, an installation in which he had taken out long line shafts and had put in individual drives, with the result that he had saved this manufacturer more than a thousand dollars a month in his power bill. Very good. I asked him at what he estimated the operating cost of group drive, in comparison with these individual motors. He looked at me in astonishment and said: "It was group drive we took out of there." I should have said "Modernized group drive." Which is most efficient? You see this lack of knowledge is not only in the plants themselves but exists also in engineering circles.

We have made studies and do not, under any circumstances, recommend any one type of drive on all installations. The widespread use of any one type of drive, whether group drive or individual motor drive, throughout the plant, without consideration of the operating costs, is bound to cause an increase in those operating costs.

Now, when we discuss group drive there is always more or less a question as to what we mean by group drive. We have prepared a few slides, showing what some group drives are doing in other industries.

(Showing slide.) This chart shows some of the uses of modern group drive in a metal-working plant. You will notice, first of all, that we employ short shafts—35 to 40 feet. There is one shaft here that is 125 feet long, but that shaft is put in with a view to expansion and is provided with numerous couplings, with separating disks, so that as machines are added they can break that shaft off and put in additional motors. It is kept at its present length in order to use a uniform type of motor throughout the plant as nearly as possible. Steel springers are employed, consisting of four-inch I-beams, permitting the use of hanger belts between these I-beams and eliminating the factor of drilling. You can change your plant around very quickly. The motors are mounted, wherever possible, over aisles, which permits easy cleaning of the motors and quick change of those motors.

It has been brought out that group drive is not flexible enough. Gentlemen, it is flexible if properly design-

ed. By having these motors over the aisles, when a motor is found improperly loaded you can bring in a lift truck, take out that motor, put in a new one of the right size and loading, then the complete change will not take over a half hour. All changes are made at the noon hour.

(Next slide.) Here we have a rather extreme example of group drive in which very short shafts are used. The length of the shafts is eighteen feet, small groups, giving in proportion to the power used an extremely efficient drive. The line-shaft losses in this plant actually average less than two per cent, so with the normal motor loss of ten or eleven per cent at the most we have a loss of efficiency of around twelve per cent, which can not easily be approached by small motors.

We have made some studies of the installation and operating costs in some of these various plants we have studied. (Mr. Hannon then showed some charts giving detailed installation and operating costs of group drive and unit drive in various types of manufacturing plants—a paint and varnish factory, flour mill, etc., etc.)

We have made some tests in the textile industry, and this slide shows the results of our study in a mill of 22,000 spindles, 520 looms. Group drive was put in the entire mill, requiring 51 motors costing \$6,751. For individual drive 768 motors would have been required, costing, with control equipment, \$41,733. Wiring for the group-drive installation, \$11,765, as compared to \$25,354 for the individual drive. Drive installation for \$25,354 for the individual drive. Drive installation for individual-motor drive of only \$9,605—considerably in the favor of individual-motor drive here, but over-balanced a lot up in the motor and wiring costs. The total installation costs are \$51,284, for the group drive, as compared to \$76,961 for the individual-motor drive.

In the spinning room the operating costs are \$18,053, for the group drive, as compared with costs of \$20,291 for the individual-motor drive. In the weave room there is an even larger difference—a total operating cost of \$9,693 as compared to \$14,857.

Of course, this is just a preliminary report, and I do not want to set this up as an example to follow. As I said before, this is purely a discussion with you. We are now engaged in studies running up to over 200,000 spindles and shall have much more definite figures, both as to operating costs and as to the production (quality and quantity), in both types of drives. So later we shall have a great amount of data which we shall be glad to let you have.

We should consider more carefully the price of drives. I do not mean by that the price we pay for belts or pulleys or motors. True, that is an item in operating cost, but it is not a factor. Those drives must be maintained, and until we consider all those costs we can not tell which drive will be the most economical installation.

#### DRIPPING OIL FROM MOTORS

Chairman McWhirter: The next question we shall take is: "Is there any way to prevent ring oiling motors from dropping oil?"

Mr. West: I think that is another point that ought to have been added into looking after the motors. If you have a man to look after them and keep the lint wiped out from each end of the bearing, so it will not wick, it will not drop. Then a lot of people do not know how much oil to put in a bearing. The man that understands how to fill those bearings up while they are cold and who keeps them wiped out will have no trouble.

Mr. Iler: There is one point there upon which maybe



this suggestion would be worth while. In a great many cases the drain plugs permit a slow drip of oil. I have found if you put those drain plugs in with a coating of shellac it practically eliminates that.

Chairman McWhirter: I have found if you will make a close examination of the bearing you will find you have probably just a few thousands of chatter that will cause it to leak. Maybe the bearing is worn a few thousandths, and the chatter in the bearing will cause it to leak, and changing the bearing will remedy it.

#### LIGHTNING SURGES ON POWER LINES

Chairman McWhirter: The next one: "What can be done to prevent lightning surges from coming through the power company's transformers and puncturing coils in motors, especially on 2300 volts?" And the next: "Would any system of lightning arresters prevent this trouble?"

Mr. Young read the following paper:

#### Surge Voltage in Secondary Circuits

This subject has not been thoroughly covered to date, and there may be considerable differences of opinion, not only as to theory but also as to the best practice to be followed in protecting secondary circuits and equipment against surge voltage. The principle of the protection of such circuits, however, has been pretty universally accepted.

It has been found that 2300 volt motor equipment is likely to experience occasional failures even when protected by arresters of exceptional merit. This, no doubt, is due in a large part to the fact that surges on circuits of this voltage are higher than the lower voltage circuits, such as 550 volts; but it must also be considered that this class of equipment does not have strength to resist surge voltage in the same proportion. In other words, it is more difficult to insulate for these higher surge voltages.

#### TYPES OF ARRESTERS

It is further to be considered that low voltage lightning arresters are usually of the distribution type for plant service; consequently, they will not limit surges to as low values as the more expensive station types. If we assume that a transformer station is within 50 circuit feet of the mill entrance and protected by the largest capacity (station type arresters), then we should expect from such an installation the very highest type of protection. This, of course, assumes that the ground resistance is low and that the length of the ground lead is short.

For a case where mill service is long and of more than one circuit, further protection is advisable at the point of entrance. It is a known fact that a properly designed arrester will limit the voltage of a surge within reasonable limits to a fixed value. In this way it fixes the value. The surges to which apparatus is protected may be subjected by choosing an arrester of the proper rating. Therefore, it is possible to limit to a minimum the chances of failure due to flashing over the insulation of the transformer, passing not only the surge into the secondary but also subjecting the secondary to high voltage winding potential. This, again, assumes proper arresters, grounds, and proper ground leads.

Where ungrounded secondary circuits are used, a surge voltage on the transformer primary will give the secondary circuit a potential above ground. The less extensive the secondary circuits and the lighter the insulation, the greater will be this potential. Therefore it follows that, the better the protection offered the primary or high volt-

age of a transformer, the less will be the voltage to which the secondary is subjected.

From the standpoint of the transformer itself, this passing on to the secondary of surge potential is of little or no importance, since its surge strength is naturally high. But the same is hardly true of motors and other air-insulated equipment. This can readily be appreciated when the casualties to the potential transformers of the dry type and other similar equipment are considered.

To summarize, I would say that surges which originate in secondary circuits can for the most part be taken care of by adequate lightning arresters, properly grounded in the circuits. Surges which originate in the high voltage circuit should be protected against: First, to insure continuity of service; second, to minimize potentials passed on to the secondary; third, to prevent the possibility of high voltage winding potential getting into the secondary.

W. A. Matthews, Operating Department, Duke Power Company, Charlotte, N. C.: The only thing on that that I think would be of value is to have your different phases grounded.

Question: Do I understand that this is lightning coming through the transformer?

Mr. Young: I judge it is from lightning.

Chairman McWhirter: We shall be glad to hear from you, Mr. Fox.

Mr. Fox: We have a great many complaints of lightning going through the transformer. With all due respect to even my associates, when lightning goes through a transformer there is no transformer left. On the other hand, I can see that a surge can be developed on the secondary side because of unevenness of control on the primary side. But nine out of ten complaints are due to lightning or surge on the secondary circuits that run through the voltage of the mill. I have in mind a mill to which the village was very close and which complained about surges on high-tension lines puncturing their motors.

This question says "particularly 2300 volt" motors. That would indicate to me motors of an installation age of about fifteen years. In other words, we have had no high-tension installation of 2300 volts, as I recall, in recent years. It would indicate to me that, speaking of 2300 volts, we are now dealing with a type of motor that has some age on it, that has been pretty well baked. Its insulation, or its factor of safety, has been decreased materially and in many cases usually grounded. Numbers of cases are shown in our records which would indicate a ground in a mill on one of the phases, and that any disturbance, even in an adjacent mill (I can name mills where this has happened), would immediately throw that mill out—cables would blow up, etc., and the motors be burned out. A 2200 voltage would indicate to me age of the wiring or of the insulation and that therefore it is somewhat weakened.

Now, Mr. Young has very ably stated that the factor of safety on the low-voltage motor is higher than that of the high-voltage motors, by which I mean the 2200 volts. And just as soon as the motor begins to be thoroughly baked by ten or fifteen years of service, that motor is going to be subject to all the ills of age. If we can just get around that matter of protection—and sometimes your protection is worse than no protection. I have known many lightning arresters set up where you would find the arresters actually grounded on the line, leaving a phase in the mill to have, as the boys say, fireworks. Your protection may really be a source of danger. When it comes to protecting 150,000 volts, I

want to make a confession to you; it just can not be done. Man has not made anything yet to do it. So high-tension protection is a matter more or less of a well devised system of transmission and a first-class installation of transformers with proper apparatus that will take care of what I shall call not potential surges but ampere surges. It is hard for me to see that lightning goes through transformers. We have known it to go through transformers, and there is a repair job on hand. I think the trouble with 2200 volt motors is from two sources.

We are eliminating the 2200 volts. It was thought to be the ideal installation at one time but is admitted now not to be the best installation. The engineering profession has fallen back to the 550 or the 440 volt installation, with the result that there is used on the lighting circuits in the village a step-up transformer from 550 volts to the 2200 volts for the lightning in the mill itself and the village. That itself would indicate to me that the best lightning arrester is the transformer. We have never found anything better.

How many have had trouble with this on the 550-volt circuits?

Mr. Misenheimer: I agree with Mr. Fox. I have had some experiences with 2300 volts. We all know that the motors are old, but what has become of the motors that have been rewound and reconditioned by the electricians and made new again? Yet we have those surges on 2200 volts. In my experience I have found, just as Mr. Fox says, largely it is due to surges coming back off the lateral line, out from the bus bars.

One time in my experience we had 2200 volts, and a lateral line was run out to start another mill. It ran out about a mile and three-quarters. During one year's time I spent \$3,700 of my company's money for repairs. That line was discontinued, and the next year I spent 37 cents, for one feeder. Now, those are actual facts. I agree with him that if you have a 2300-volt line running out from a sub-station it does not have to come through the transformer to come back on you. It may not come off from your individual bus bar. It does not have to come through the transformer to come back on you. I have had charge of two plants in which I had that condition existing. I believe that if these conditions are eliminated you would not have as much trouble on 2300 volts as we have had in the past. A lot of them have been eliminated. If these conditions are remedied it will take a lot of the troubles out of the 2300 volts.

I should like to say that the 2300-volt motors are the best built motors that I have ever operated; they have the best insulation and best power factor that I have ever run, and I believe Brother Fox and these other gentlemen will agree with me on that. When it comes to power factor, there is more economy in the 2300-volt motor than anything else I have ever used, outside the synchronizing motor.

We have some good lightning arresters; and if they are properly kept, properly charged, they will help you. Of course, I do not believe there is anything gotten out by man that will take care of these lightning surges, because we do not know how many volts are in it, and there is no way to find out. But I believe they will help you, though they will not eliminate all the trouble.

### Afternoon Session

Chairman McWhirter: We want to finish the discussion about the lightning surges.

R. L. Vaughn, Gower Electric Service, Greenville, S. C.: I know a lot of mechanics have 2300-volt motors, and I know a lot of them pull their switches when they see a

storm coming up. I have been called many times because a motor will not run and can find no cause but surge and find a place—maybe a sixteenth of an inch—that is open. It does not look like a direct shot of lightning. This summer I was up in the mountains on a vacation and was staying in a house where a fuse would blow when a storm came up; no current on—everything perfectly clear, but it would just shoot through the lamp cord. I wanted to find out the cause of it, so I went to work and made a little spark gap and set it up across the switch and sat there and watched it. I saw a little blue switch over sometimes; sometimes one would not hear it, and sometimes it would almost blow you out of the house.

### STATIC CHANGES

Mr. Fox: We had a peculiar case. A meter man was testing the equipment in a mill. The current was off the line, no connections made with the power line in any way whatsoever; and yet that man was struck from one of those circuits to such an extent that there was a mark around his body that could be easily seen. It is impossible to tell the cause of things like that except that it is a static charge built up on these lines by the electrical condition in the air. In the mountains I suppose you had a very bad case of that, and the probability is that the condenser effect of his line charged up just like a big condenser, and it had to go to the ground. That seems very strange, but it does happen. If the current were off these high tension lines here and no motor induction laid on, it is possible those lines would show a higher voltage than the station. That is due to the condenser effect of the big lines picking up the static in the air until it has to go to the ground.

W. V. West: I can not attribute any trouble to surges on the line. We did have a good bit of trouble there several years ago, and whenever I see a lightning storm coming up I open up our village—2300 volts. If it gets right in on the mill I shut the mill down; I have done that a few times. But since I have been opening up the village I have not had any surges on the line that caused interruptions.

Mr. Fox: Before noon time I made mention of our 2300-volt motors and also mentioned the age. Of course, I have had some trouble that I could not attribute to lightning or surges; I attributed it to the age of the cable. So far as lightning coming in is concerned, it has all come in from the village and not through the transformers.

Mr. Young: We have two mills on the 2300 volts, three on 550, and one on 220. Well, the 220 and the 550 we forget about; we never pay any attention to them at all. If they tell me anything is wrong I just get a fuse; I know that is about the extent of the damage.

It seems to me that from most of this explanation regarding this voltage the supposition is that it is caused from local thunderstorms. Now, we pull our voltage switch at daylight in the morning; we don't have our houses metered. The houses are scattered all over everywhere. That switch is pulled; it is never in even during the local thunderstorms. But we get these surges; they come from somewhere. Sometimes we never even see the lightning, or just barely see it in the far distance.

Question: How much of a surge do you have?

Mr. Young: Well, we have enough of a surge to puncture the coils in a 2300-volt motor—regardless of age, too. I had one rewound, and it punctured the next day. We have three 2300-volt circuits from your sub-station there, to the different mills, and the shortest circuit we have is to the No. 1 mill. We have more trouble



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there than in any other mill, and it is about half the distance from the sub-station.

Question: Are both the others 2300?

Mr. Young: No, we run from 2300 down to 550. But the line to the No. 4 mill is at least three times as long as it is to No. 1, and the one to No. 2 mill is considerably longer than the one to No. 1. But we have more trouble with No. 1 than with any of the longer lines.

A year or two ago we were making the power over there, and we did not experience this trouble then. We never had any trouble during the time we were making our own power. Our surges could not be backing up from the village, because we do not have the switch in.

Mr. Fox: Take a case here in town. If we had a mill here driven off the 2300-volt circuit, bear in mind that these same circuits, with the same bus bars on the transformers, are extending all over the city of Spartanburg. In Greenville the 2300 volts extend quite a distance. The 2300-volt does not go from our sub-station; it is stepped down. In Albemarle the 2300-volt circuit supplies not only the mill but the entire town. I admit there are conditions in which a distant storm will cause a fluctuation in voltage on the line. The character of that fluctuation is measured by us and at times we have found it high, depending on whether it was lightning shock, short circuit breaking, or something of that kind. A surge will appear. The curious thing is that the motors farthest from the sub-station are not affected, while those nearer to the sub-station are affected. Why that is I can not answer.

Mr. Iler: I believe it is a pretty generally accepted theory that you have a lightning stroke as a result of an accumulation in the atmosphere which finally becomes strong enough to break down the resistance in the path to ground. Last summer I was standing outside our mill in a severe rainstorm, and I saw lightning strike the Duke Power Company's plant (which, by the way, was not serving our plant). I saw the lightning strike the ground wire on this high-tension line, two or three poles away. Right up above me was a three h.p. motor, and that motor went up in smoke in the same instant. I thought about that a good deal, and this explanation came to my mind. In line with the theory which I outlined in the beginning, isn't it possible and perhaps a fact that the accumulation of electrical tension in the atmosphere tends to build up electrical tension in your own system, even in the steel frame work of your building? When that tension is relieved outside, isn't it probable that that explosion will also cause relief of the tension that has been built up on your own system and manifest itself in the puncture of some winding somewhere?

A. C. Morrison, Meter Superintendent, Duke Power Company, Charlotte, N. C.: The Duke Power Company sends their test men over their system regularly, on periodic testing; and in the course of periodic testing grounds are tested, or tests are made on each individual customer to determine if a ground exists. If one does exist the division superintendent is notified immediately, and he in turn gets in touch with the mill management and notifies them that it is very important that they get out this ground immediately, telling them that if this ground does exist in their mill in one phase it goes back to the power bank and on that same system to any other mill or mills it might feed, and if we get another ground in another mill on the opposite phase something will blow up; something is going to happen. Sometimes they realize they have a ground and just let it ride until a more convenient time to fix it, but something might happen.

You should have a ground meter or some kind of instrument that registers in ohms. Of course, the perfect reading on grounds is zero, and of course we try to reach that—but do we get it? We get it if we can. I consider that anything from zero to around fifteen ohms is good grounding. Some people say up to twenty-five is all right. Where you have lots of rock and strata it is hard to get good ground, but you should try to get it. If you have a high-resistance ground, as we call it, you will always have trouble. If you haven't any ground at all you had better look around and get one.

Chairman McWhirter: We want to come to some conclusion about this. Is there any remedy for these grounds, to prevent these things. Now, in my experience, I think a transformer is the best lightning arrester we can have. If it shoots, let it go; it belongs to some power company. (Laughter.) If you have a mill with open wiring from the switchboard up through the mill you will pick up that lightning. Let me tell you what we did. We were losing five or six motors in a summer season from lightning. We put lightning arresters on, and they did not seem to remedy the trouble. We were driven by the power company at the time. We did have some of those big surges come on the line, but they got to the transformer before they got to us. We figured at first some of the motors were old, but we found we were losing some that had not been wound so long. I suggested to the superintendent one day that we put the wire in conduit. We did that, and from that time up to this day we have absolutely stopped our motors from being shot by lightning. I believe, if you have open wiring throughout your mill, if you will put it in conduit you will eliminate some of this.

Question: Ground your conduit?

Chairman McWhirter: Yes; ground your motor and ground your conduit. Another thing; have you an instrument on your board to tell you whether you have a ground, or not, on every phase? You can get a very simple little instrument that costs \$35 or \$40. A little bulb on there goes out when there is a ground. When you see the red globe go out, put your electrician on the job and get him busy. He may have to start every motor in the mill, but he can trace it out. We have not lost a motor in three years by lightning, and we used to lose five or six a year. I remember that one time our electrician had three motors down to be wound. We have put our open wire in conduit, and it absolutely remedied it.

Question: What voltage have you?

Chairman McWhirter: 550. Shall we drop this question right here, or go further with it? If we drop it here, the chair is going to rule that we have reached no conclusion whatever on it.

Mr. West: I believe Mr. Young reached the conclusion that he did not have a ground.

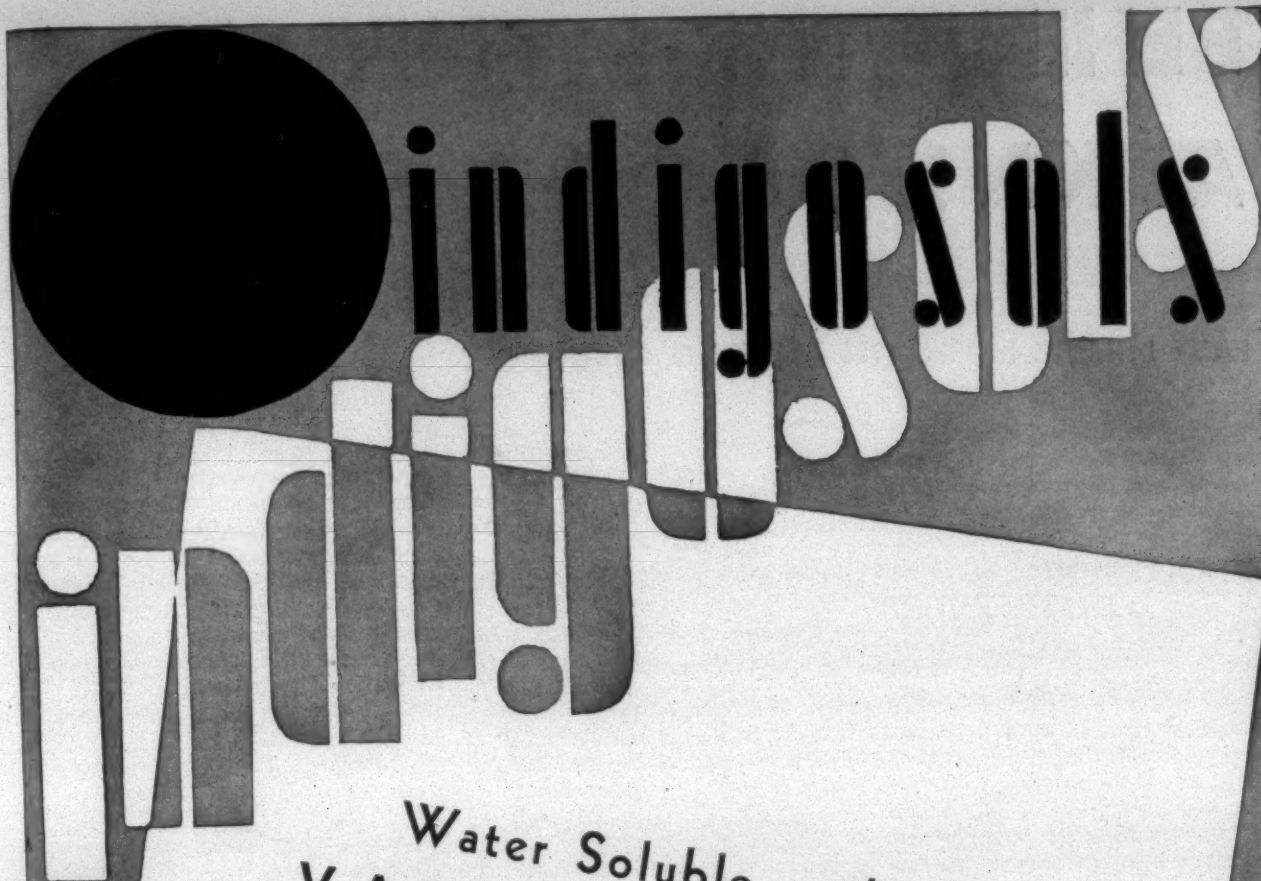
Mr. Young: I said maybe.

Mr. West: When Mr. Fox was talking about soldering on to a water pipe, I do not consider that he has a ground. I think you have to go down eight feet or deeper and break through the hard, dry crust to get a ground. I think if you get it deep in the ground and carry it to the ground, then it will be all right, but I do not consider that you have a ground if you use a water pipe.

Mr. Morrison: I should like to say to those who are considering putting in better grounds that if you will use a strong saline solution, using as much salt as a bucketful of water will dissolve, and use two or three bucketfuls of that solution, and wet down the earth around

(Continued on Page 23)





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# BEHIND THE SCENES WITH A KNITGOODS STYLIST

## LAST MINUTE NOTES ON KNITTING FASHIONS

by *HARWOOD*

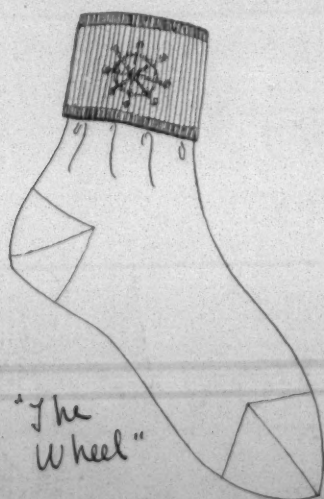
### AS CHARMING AS CHILDHOOD

The coupling of creative ability with promotional sense is rare in this world. We have just happened upon a shining example of this unusual combination in the person of A. O. Mojo, who is the president of Galate, Inc., and responsible for Supercalzini socks and anklets for little children. Supercalzini, by the way, is the Italian for super-socks.

The little socks are as charming as childhood, and in the fantastically modern boxes in which they are assembled, each with a tiny book of decalcomania attached to the toe—the legends in Italian, if you please—they carry with them a novel and delightful atmosphere.



Supercalzini socks are made in Italy by white coiffed Italian maidens supervised by nuns. The finest Sakels yarn is employed, to which the Italian



water gives a silken luster. The yarn is used four ply instead of two, which makes the little socks more absorbent, and because of the added firmness this gives them, holds them in place more snugly on active little legs. They are actually knit in half sizes and not boarded up and down as is frequently the case.

The socks are ingrain and for the yarn Indenthrein vegetable dyes are used, so that, for all the exquisite delicacy of their colorings, the socks may be boiled—they may be sent to the ordinary laundry without fear of injury.

The result of all this care is quality which is not shamed by the fineness of the baby skin against which they are worn. The outstanding charm of the little socks, however, is their pat-

terns. Each one is worked out by Mr. Mojo himself with taste and imagination which "shines like a good deed in a wicked world." There is, for instance, "Dresden China," a fragile flower pattern which we have reproduced on this page, "Music," a little lullaby of notes worked out in Jacquard effect—as are all the designs—about the garter top of delicately toned stocking, "Cubist," a very smart little pattern in colorings which include that most difficult of



### WHAT IS YOUR STYLE PROBLEM?

This monthly feature must of necessity be general and of fairly wide scope.

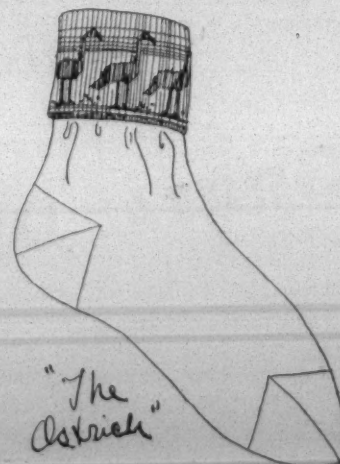
The reactions of our readers and their inquiries indicate that each has his own style problem, peculiar to himself.

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all combinations to achieve, four shades of blue in one sock, a very "nifty" pattern to appeal especially to the yachtsman of the future, consisting, not of the everlasting anchor, but of the overlooked and very dec-





orative wheel of his mythical craft; and the triumph of the collection, the "Ostrich," this being the only bird in ornithology with sufficient height to submit, without unseemly distortion,



to the stretching out process which occurs when the sock is drawn on a sturdy little leg.

*If the height of art lies in the concealing of it, then the Se-Ling Hosiery Company have been most successful in their Christmas packages. Each pair of stockings is wrapped in patterned paper with about the skill achieved by the ordinary careful preparer of Christmas packages on her home dining room table or bed. They are tagged just about as she tags them and accomplish a harmless deception which will certainly appeal to the tired Christmas shopper who does not wish to present a "store made" package but who feels that bundle wrapping is just one task too many for the busy holiday season.*

## NON-RUN NEWS

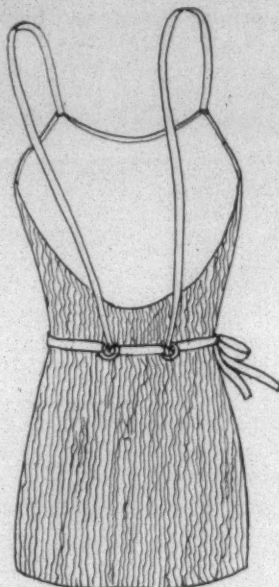
Non-Run is still the outstanding hosiery sensation, and the latest development is the stocking being made by the Artcraft Silk Hosiery Mills. In this stocking one disadvantage of the previous types of Non-Run hose has been overcome—that is their somewhat mesh-like appearance. Many women do not care for mesh stockings, especially for winter wear.

For the Artcraft hose a runproof fabric has been used, cut and fitted in the leg and accompanied by a full-fashioned foot and welt. The fabric is about like that of a three or four thread chiffon stocking and it is almost impossible to get a pick-thread in it—the ordinary start of so much stocking trouble. The Artcraft stocking, which was placed on the market November first, retails at the standard non-run price, \$1.35.

## NEW UNDER THE SUN

Lastex, the wonder-yarn, described in the last issue of the Bulletin, is making its appearance in a new way in Jantzen bathing suits. This house has gotten out some very practical and appealing garments which are

quite revolutionary in character. There is nothing in the very smart appearance of the suit to suggest that a surprise lurks in its fabric. But it does.



The suits stretch both ways, and mold, support and improve a woman's figure in a fashion which is going to win a telling success on our southern beaches in a month or so and later on up north. They do away, of course, with all that bothersome business of the brassiere.

Lastex gives these bathing suits all kinds of advantages. The fabric into which it has been introduced is much finer and softer than the knitted fabrics of other seasons and it is possible to get amazing new effects with it—dress goods patterns, heretofore impossible, rough knit and tweed effects. You will note the latter in the garment sketched on this page.

The Lastex is unaffected in any way by salt water. The promoters of the Jantzen suits have on display in their sales rooms a garment which has been subjected to five thousand stretches under water by a stretching machine, equal to more than one season's wear, and it would take an expert to tell it wasn't brand new.

*The outlook for spring is gray, and if you are a stylist, you are wondering what to do about it. Well, here is a hint. With a gray costume, gray stockings are not nearly so attractive as a neutral shade, toning in with the accessories. The beige should have a brown tone, if the accessories are to represent that supersmart combination. If they are to be black or the costume is to be entirely gray, then the beige should be very neu-*

*tral. Every woman, however, is not in possession of this sartorial secret, so you will have to have a gray stocking or two in your line also.*

## FROM SUNNY SPAIN

French women are exceedingly partial to lisle thread hosiery with strictly tailored costumes and for sportswear. While this fashion has never been so widely accepted in America, Galatex, Inc., have proven that there is a definite market for fine grade hosiery of this type.

In accordance with their policy of specializing in quality, this house is importing from Spain a forty-eight gauge hand twist lisle hose which is being very well received. Bloomingdale Brothers of New York, for instance, have been featuring this hose for about a year with excellent results. It retails for a dollar and comes in staples and lovely pastel sports shades. With their customary promotional sense, Galatex show this



stocking in their sales room in conjunction with the characteristic white duck sandal worn by the Spanish peasants. They are called "Alpargatas" and have woven hemp soles.

As may be seen in the sketch which accompanies this article, the shoes have very smart lines and distinct fashion possibilities.

These Spanish lisle stockings are also imported in out sizes, extra long and extra wide, knitted on a seventeen-inch bar. The out sizes are fifty-one inch gauge.

## PERSONAL NEWS

Estelle Lee has been promoted to second hand in spinning at the Cochran Cotton Mills, Cochran, Ga.

Meyer Edelman has resigned as sales manager of the Cleveland Cloth Mills, Shelby, N. C., after serving in that position for the past five years.

J. A. Miller, president of the Exposition Cotton Mills, Alanta, Ga., was injured in an automobile accident last week, but is understood to be improving rapidly.

A. Ashton, of New Bedford, Mass., has accepted the position of superintendent of weaving at the Brookside Mills, Knoxville, Tenn.

O. R. Johnson has resigned as superintendent of weaving at the Brookside Mills, Knoxville, Tenn. He was formerly overseer weaving at the Dunnean Mills, Greenville, and will make his home in Greenville for the present.

Friends of C. W. Causey, treasurer of the Pomona Mills, Greensboro, N. C., will learn with much regret of the death of his father, John Franklin Causey. Mr. Causey, who was 73 years of age, died Tuesday.

Ersline E. Boyce, of Gastonia, has been granted a patent on a sewing machine for making tufted and looped rugs, it is reported by Paul B. Eaton, patent attorney of Charlotte.

LaFayette Holt, of Burlington, N. C., has secured a patent on a yarn supporting beam whereby packages of yarn are stacked on perforated pipes, the ends of which are secured on hollow head members and the dye is forced through the pipes and through the yarn. The patent is reported by Paul B. Eaton, attorney, of Charlotte.

### Stevenson & Burgess

A partnership for the handling of mill supplies has been formed by T. B. Stevenson, 501 N. College St., Charlotte, N. C., and C. A. Burgess, 108 Jones Ave., Greenville, S. C.

Mr. Stevenson was one of the best known cotton mill superintendents, being for a long period at Langley, S. C., and later at Henrietta, N. C.

C. A. Burgess was for more than 30 years with the American Moistening Company and has a very extensive acquaintance with mill men.

Both are men of ability and experience and have a very large circle of friends.

They are handling belting, loom harness and strapping, picker sticks and wooden supplies for looms, crayons, brooms, fibre and wood spools, clearer rolls, speeder and spinning bobbins.

### Plans for N. C. Meeting

The meeting of the Cotton Manufacturers' Association of North Carolina, at the Carolina Hotel, Pinehurst, on November 17 and 18, will be informal in character and devoted mainly to a discussion of the cotton manufacturers' most immediate problems.

The board of directors will meet on the morning of the 17th. The afternoon will be devoted to golf. The an-

nual banquet will be held that evening. The principal speaker at the banquet will be Senator J. W. Bailey, of North Carolina. Mr. Bailey's subject has not been announced, but it is expected that he will discuss some questions affecting economy in government.

The regular business session will be held Friday morning and will be featured by a round table discussion of a number of important matters. Among the guests expected for this session is George A. Sloan, president of the Cotton-Textile Institute.

The several sessions will be presided over by Kemp P. Lewis, president of the Association.

### Egyptian Cotton Expert Gives Talks To Textile Students

S. G. Tsamis of Cairo, Egypt, specialist in cotton production and in different phases of marketing Egyptian cotton, will give several talks during the school session to the students of the Clemson Textile Department. Mr. Tsamis, a native Egyptian, is now taking special work in the technique of cotton manufacture at the Clemson Textile Department.



Mr. Tsamis has traveled and studied in France, Italy, Switzerland, Austria, Tchechoslovakia, and England. He is a graduate of the Higher School of Agriculture, Giza, Egypt; has taken special work in Ecole d'Agriculture, Montpellier, France, and in the Institute Agricole de Frédbourg, Switzerland.

His commercial activities include service as general representative of three Egyptian cotton shipping firms in France, Italy, Switzerland, Austria and Tchechoslovakia; connection with the extension service of Egyptian Pima cotton, and cotton agent in Liverpool.

The lectures of Mr. Tsamis to the Clemson textile students will deal with different phases of cotton production in Egypt and general marketing conditions in Europe.

### Textile Export Gain

Washington.—While textile exports from the United States in the first nine months of 1932 maintained approximately the same level as in the corresponding period of 1931, imports of textiles into this country in the nine-month period of the current year declined 40 per cent, according to the Commerce Department's textile division.

### Crop Estimate is 11,947,000 Bales

A cotton crop of 11,947,000 bales was forecast by the government crop reporting board in its estimate announced Wednesday. This figure is an increase of 522,000 bales over the estimate of October 8th.



# The Lubrication of Ball and Roller Bearings

BY K. A. NEWMAN

The Houghton Research Staff.

**T**HE main difficulty in making definite recommendations for the lubrication of anti-friction bearings is that in any industrial plant operating a few hundred ball bearings there will be found ten or twenty different ball bearing lubrication problems.

The mechanical factors which are variable and which have a decided effect, not only on the choice of the lubricant but on the performance of that lubricant as well, are as follows:

1. Size.
2. Load.
3. Speed.
4. Operating temperatures.
5. Design of bearing housing.

The housings of ball or roller bearings vary in construction, depending on the maker, and in general it is this feature which predetermines whether oil or grease shall be used as a lubricant. If ball and roller bearings were so designed that oil could be used as a lubricant, it is our belief that 75 per cent of the lubrication problems on these bearings would be entirely eliminated.

This step, however, would add considerably to the cost of production and, therefore, is considered impracticable. There is no doubt, however, that the highest lubrication efficiency is attained in bearings designed for oil lubrication. The reason is simple: oil naturally creates less fluid friction to offer resistance to the motion of the rolling and sliding part. The use of grease must result in more fluid friction than does the use of oil, no matter how perfect its construction.

Operating temperatures play a tremendously important part in choosing a lubricant, since the viscosity of oil and the body or consistency of grease decrease rapidly under the influence of heat. Changes in operating temperatures result from two sources:

1. Induced heat.
2. Frictional heat.

Induced heat is that which is generated from some source other than the bearing, and is transmitted to the bearing either along the shaft, through the casing or by the surrounding air. Induced heat includes temperatures either above or below the normal prevailing room temperature: that is, it may add heat to the bearing or extract heat from it. Thus an operating temperature of 30° F. can be caused by induced heat just as readily as a temperature of 250° F.

One of the main causes of faulty lubrication of anti-friction bearings is the practice of using one lubricant for all the ball and roller bearings in the plant, regardless of temperatures or operating conditions. Wide experience enables the lubrication engineer to make definite recommendations for any set of operating conditions. Such a list is featured later in this article. The adoption of this chart in its entirety may not be feasible in many plants, but a compromise or standard lubrication practice chart can be compiled using this as a guide.

## EFFECT OF HIGH TEMPERATURE ON GREASES

High operating temperatures cause grease to become softer in consistency. Ordinary greases are composed of a soap filler which has been combined with a light-bodied mineral oil by mechanical agitation under heat. The proportions of oil and soap are varied to produce the consistency required in the finished product. The heat and centrifugal action met with in operation tend to separate these component parts. On shutting down the machine, all of the oil released from the filler will not be taken up again, especially since the stirring action of the rotating balls or rollers has ceased. This condition is known as "bleeding" or "separation."

Continued bleeding over a period of time will cause an excess of oil to be thrown out of the bearing by centrifugal force, leaving behind a mass of soap which gradually becomes drier and drier until it has no lubricating properties at all. In addition, this dry soap is an abrasive, and, therefore, promotes wear.

Hardening or drying of a grease is often accompanied by rancidity and by a rapid increase in the free fatty acid content of the soap filler which causes etching, pitting and corrosion. However, this can be overcome by the use of quality greases, which will not deteriorate with age.

Water, which enters into the saponification process of making the soap must be completely eliminated from the finished product, since its presence will cause hydrolysis, resulting in rapid decomposition of the grease and a rapid increase in the free fatty acid content.

Of course, the ideal grease would be one that contained absolutely no soap or other fillers but was all lubricant. Soap is not an efficient lubricant, hence the higher the percentage of soap in a grease, the lower its lubricating efficiency.

The average grease contains from 20 to 35 per cent of soap or filler depending upon the consistency of the grease.

The problem of developing greases containing the lowest possible percentage of filler has been the subject of intensive research. The success is evidenced by the fact that recently developed ball bearing greases contain from 2 to 5 per cent of filler—about one-tenth the amount used in ordinary greases.

Greases are usually mechanical mixtures of soap, resin and light mineral oils agitated at high temperatures. Heat assists in their formation and heat in service results in their destruction. These new anti-friction bearing greases are not merely mechanical mixtures. Their ingredients are combined in colloidal form and form an absolutely stable mixture which cannot separate in service. The great reduction in the percentage of soap content gives these greases many interesting advantages over the usual type of grease lubricant. They cannot harden or separate either in storage or in service, thus they will never leave

(Continued on Page 25)

# KNITTING TRADE NOTES

## Knitwear Industrial Exposition

For the first time in the history of the Knitted Outerwear Industry, the National Knitted Outerwear Association will hold an exposition at the Grand Central Palace, New York City, week of February 13-17, 1933, concurrently with their annual convention.

The exhibits will consist of machinery, yarns, dyes, needles, trimmings, buttons, containers and many other items used in producing knitted outerwear.

New York City, the center of the Knitted Outerwear Industry, is visited annually at this time of the year by buyers from every section of the country. An exhibit at this Exposition affords the allied trades supplying these various items to the knitted outerwear manufacturers, a wonderful opportunity, never before possible, to contact their customers and prospects under most favorable conditions, as all knitted outerwear manufacturers will be invited to attend the exposition and convention.

Sidney Korsenik, secretary of National Knitted Outerwear Association, is arranging an interesting and instructive program for the convention.

## To Discuss Childrens Hose

The National Association of Hosiery and Underwear Manufacturers will hold its special conference on children's goods and infants' anklets on Wednesday, November 16, a week later than had been tentatively scheduled, at the Waldorf-Astoria, New York.

Setting the date a week later was necessitated by the intervention of election day, which would prevent a number of mill men from attending.

## Patent On Elastic in Foot

A new hose patent has just been granted the Gotham Silk Hosiery Company, Inc., by the U. S. Patent Office, involving an elastic section in the foot portion, when the latter is constructed of a material heavier than the leg.

In knit hosiery having a foot portion of heavier material than the main portion, the improvement which comprises providing a portion of the sole intermediate the heel and toe thereof with a narrow transverse elastic section comprising fiber-covered rubber threads forming an integral part of said foot portion.

## 60-Gauge Hosiery Now On Sale

As a result of experiments over a period of 18 months in this country, the new 60-gauge hosiery, the finest said ever to have been produced here, is being offered for sale by Lord & Taylor, New York. The product, made on German machines, is manufactured by the Oakbrook Hosiery Company, Reading, Pa.

The 60-gauge stocking is of a two-strand construction. The initial retail price is \$1.95 a pair.

Only one set of machines is said to be located in this country turning out this type of hosiery.

## New Tubular Finishing Machine

Development of a new tubular steaming, tentering and finishing machine for tubular knit fabrics is announced by Kasanof Tubular Machines, Inc., Brooklyn, N. Y.

The machine, it is claimed, may be used for finishing fabrics made of all textile fibers and combinations thereof, and is described as a radical departure from present methods of steaming, tentering and finishing knit fabrics.

Any desired type of finish may be obtained, it is stated, and a particular point is made of the claim that stripes in the fabric are finished absolutely straight, and that all patterns are kept true and accurate.

The new machine allows for the finishing of fabric to the original dimension as knitted, or shrinkage or stretching the fabric as desired. Fabrics are steamed, entered and finished in one operation; the process used assists in permanently setting the dye in the fabric and brings out the brilliance of the colors, it is stated.

Many economies in operation are claimed for the new machine, including savings in steam, labor, power, time and floor space. The machine can be operated on one floor, but where two floors are available handling of the fabric is facilitated.

## New Knitting Devices Patents

Latest patents granted by the U. S. Patent Office to the knit goods field cover machines, attachments, shaping and drying forms and knitting needles. They are as follows:

To Karl Richard Lieberknecht, Oberlungwitz, Germany, on a straight knitting machine attachment. The claim reads:

"In a straight knitting machine the combination of a gallows, hangers attached thereto and a welt hook bar detachably supported in idle position by said hangers with its welt hooks facing toward and close to the bar for protection of the hooks."

To Robert Kirkland Mills, Sherwood, England, on a knitting needle. The first claim reads:

"A knitting needle comprising a shank, a hook on said shank, a plurality of pivoted latches spaced one below the other on the same side of said shank, adjacent latches being adapted to engage or overlap at their tips when extending in opposite directions, and a parallel or substantially parallel space being provided between the back of a fully opened or lowered latch and the needle shank for freely accommodating a thread laid on said shank."

To Bernard Hertan, Brooklyn, N. Y., on a spring knitting needle. One of the claims:

"A spring knitting needle of the class described, comprising a stem and a beard coextensive therewith and substantially parallel thereto; said beard containing combined thread holding and presser engaging means; said means consisting of inwardly projecting portions adapted to hold a thread positioned between the stem and beard against downward movement, and a recessed portion adapted to receive the contacting portion of a suitably

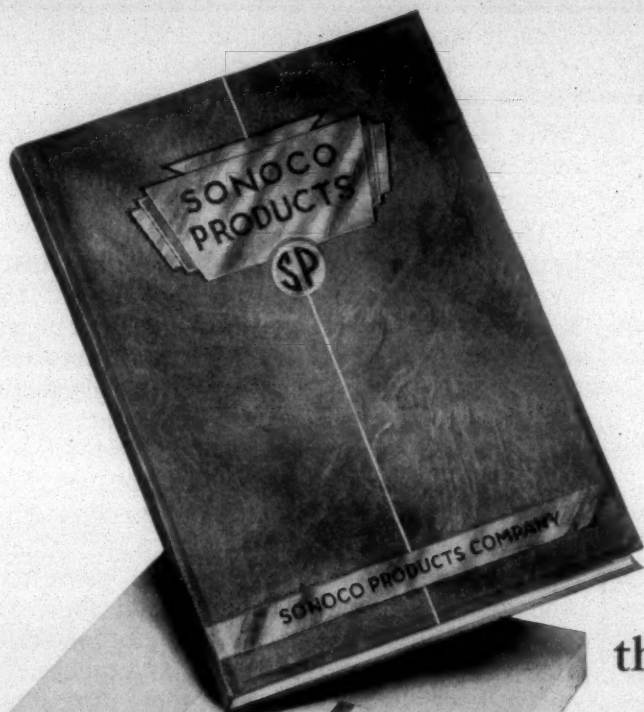
(Continued on Page 24)



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# SOUTHERN TEXTILE BULLETIN

Member of

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Published Every Thursday By

CLARK PUBLISHING COMPANY

Offices: 118 West Fourth Street, Charlotte, N. C.

DAVID CLARK	Managing Editor
D. H. HILL, JR.	Associate Editor
JUNIUS M. SMITH	Business Manager

## SUBSCRIPTION

One year, payable in advance	\$2.00
Other Countries in Postal Union	4.00
Single Copies	.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

## The Passing of Herbert Hoover

The defeat of Herbert Hoover was the result of the depression.

When people are in distress they look around for some one upon whom to fix the blame and some one to punish, and Herbert Hoover as the titular head of the Government was in position to receive the blow.

Mr. Hoover is a man of ability and high character and he did his best to bring the country out of a depression for which he was not to blame but he found it an impossible task.

There can be no denial of the fact that Mr. Hoover made mistakes but most of his opponents give him credit for sincerity and patriotism and attribute his errors to the fact that he was trained as an engineer and lacked experience as a politician.

Much has been said in recent years about the need of placing business men in charge of government but we have about reached the conclusion that in conducting the government of a city, a State or a Nation a politician or man experienced in politics will produce the best results.

With the engineer's desire for research Mr. Hoover attempted to handle many of the Nation's problems by appointing commissions rather than having the decisions made by himself and his cabinet.

Mr. Hoover can look back upon the past four years with a clear conscience and his only regret need be that his efforts in behalf of his countrymen were not productive of greater results.

We have never been greatly impressed with the ability of Franklin D. Roosevelt but, like

Herbert Hoover, he is recognized as a honest and patriotic citizen.

The Roosevelt family has a record of accomplishments and his mother, a Delano, came from a race of strong and conservative people.

Should Franklin D. Roosevelt surround himself with a cabinet of strong men, as is generally expected, the country will have nothing to fear.

His weakest point is the support given him by William Randolph Hearst, one of the most despicable men in American life, but it is difficult to believe that Mr. Roosevelt will be greatly influenced by a man of that type.

We do not share the fear of many that the tariff will be greatly reduced or a flood of foreign made goods admitted.

There will be some adjustments, of course, because it is recognized that the present tariff went to an extreme at some points, but the Roosevelt administration will be vitally interested in getting American workmen back into factories and will know that any great increase in the volume of imported goods, will mean a continuation of idleness in the United States.

From one standpoint the election of Mr. Roosevelt is admitted by many staunch Republicans as being fortunate.

As the result of depression plus organized propaganda, there has been built up in this country a large group of radicals who are now affiliated with socialists, communists and other subversive forces or are inclined in those directions.

The election of Mr. Hoover would have been considered by the radicals as a flat denial of their contentions and serious disturbances might have occurred.

The election of Mr. Roosevelt will be considered by many of the radicals, the milder ones, at least, somewhat in the nature of a victory for them and they will be willing to await developments and as conditions improve they will forget their radicalism.

It is distressing to some to see a public servant, who has labored energetically and faithfully to bring back prosperity and happiness to the people, go down but it must be recognized that the "pay-off" of the public is upon the basis of accomplishments, not efforts.

Franklin D. Roosevelt is to be President of the United States for four years from next March and it is to him and his cabinet and his Congress that the people of this country must look.

No matter what a citizen's political affiliations may have been, the fact remains that Franklin D. Roosevelt is to be his President and it is behind him that we must progress towards a new and more prosperous day.



Aside from the possible, but improbable, influence of William Randolph Hearst, we see nothing to fear. We certainly see no reason to anticipate any material reduction in our tariff protection.

### A Surprising Cotton Yield

The November 9th Government report placed the 1932 yield at 11,947,000, which is a lint yield of 156.2 pounds per acre, and there is no reason to question the accuracy of the report.

The surprising item is the lint yield per acre.

Eliminating the abnormal yield of 1931 the lint yield per acre in recent years has been:

1927	154.5 pounds
1928	152.9 "
1929	155.0 "
1930	147.7 "
1932	156.6 "

Records show that the use of fertilizer this year was by far the smallest of recent years and the growing season has not been unusually favorable but the lint yield per acre is 156.6 or greater than any recent year except 1931.

The only bullish factor in the report was that 9,245,000 bales had been ginned prior to November 1st and therefore only a small amount is yet to come upon the market.

### Professor Ericson Speaks

A few days before the election Prof. E. E. Ericson, of the University of North Carolina, conducted a meeting of Socialists in Gerrard Hall at the University and a report of the meeting said:

Sketching briefly the uphill struggle of the Socialist party in this State against anti-radical movements, the speaker (Prof. E. E. Erickson) charged that David Clark, editor of the Southern Textile Bulletin, succeeded in having Carl Taylor, of State College, discharged, ostensibly on the grounds of economy, but actually for radicalism. He stated that Clark offered financial inducement to persons in Chapel Hill who would give him information as to professors here connected with radical movements.

Professor Ericson, while drawing his salary from funds provided by the people of North Carolina, conducted a campaign for the Socialist party which seeks the overthrow of our government. He gathered students into Gerrard Hall which is owned by the citizens of North Carolina and sought to make Socialists out of them.

About one year ago we did attempt to secure a list of the professors at the University of North Carolina, N. C. State College and Duke University who were members of the League for Industrial Democracy which has for its motto "Production for Use But Not for Profit."

We addressed letters to the League for Industrial Democracy at each of the institutions, asking for a list of its members, or even a list of the officers, but only received a reply from Duke University. They referred us to national headquarters in New York but no reply was received to our request sent there.

Although it was known that there was an active chapter of the League for Industrial Democracy at the University of North Carolina, they were unwilling to give even the names of their officers.

Receiving, about that time, a letter from one of the editors of Contempo, we did offer to pay him for a list of the members or officers of the local League for Industrial Democracy and that offer still stands good.

### An Industrial Tragedy

We notice, in a Massachusetts newspaper, an account of the efforts to sell the building formerly occupied by the Dwight Manufacturing Company at Chicopee, Mass.

The description of the buildings is given as follows:

The property consists of four up-to-date manufacturing units, according to an advertising circular, and has all the conveniences of elevators, electric wiring and steam heat. Mill No. 1 is 545 feet by 113 feet and has five floors of 62,000 square feet each, a total area of 310,000 square feet; Mill No. 2 is 373 feet by 70 feet, with five floors of 24,600 square feet each, a total area of 123,000 square feet; Mill No. 3 is 163 feet by 110 feet and has five floors of 18,000 square feet, a total area of 90,000 square feet, and Weave Shed No. 8, has two floors of 63,000 square feet each, a total of 126,000 square feet.

Other extracts from the notice say:

Formerly several thousands of people were employed in this plant, whose aggregate wages annually amounted to over \$1,000,000.

Plenty of skilled high-grade labor is available in this section for almost any form of manufacturing.

The loss of a payroll of over \$1,000,000 annually and the throwing out of employment of thousands of textile employees is a tragedy the like of which has been witnessed many times in Massachusetts during the past five years.

Massachusetts enacted an eight-hour law when there was no legitimate reason for same and labor unions under the domination of professional organizers and strike leaders kept the cotton mills of that State in constant turmoil and made operations irregular.

The machinery which the Dwight Manufacturing Company formerly operated at Chicopee was not moved to the South but to New Hampshire, where there is a 54-hour law and where labor unions have not been encouraged, to the same extent, as in Massachusetts.

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## **MILL NEWS ITEMS**

CHARLOTTESVILLE, VA.—Inauguration of a three-day week schedule at the Charlottesville Woolen Mills, Charlottesville, Va., as rapidly as the various departments can be got into production, has been announced by the management. The mill has been shut down for several months. A full force will be employed.

EDGEFIELD, S. C.—The Kendall Company, Addison plant, which manufactures surgical gauze, it is officially announced, within a short time will install new equipment which will make the Addison plant one of the best equipped in the State. T. A. Hightower is superintendent of the division.

FRIES, VA.—Washington Mills Company, manufacturers of sheetings and drills, is now on a 55-hour day time and night schedule. All of the machinery runs during the day time schedule, and most of it at night. This industry has not curtailed much in five years. J. W. Bolton is superintendent.

LAKE CHARLES, LA.—Bagging for Southern cotton growers, pockets for the Southwest and California rice grower, bags for the cane planter in the Louisiana sugar bowl, bags for cotton oil mills, and burlap bags for varied uses will be manufactured by the Redman Bag & Bagging Co., a \$40,000 importing and manufacturing firm, starting operations here.

YORK, S. C.—The Lockmore Cotton Mill at York and the Wymojo Yarn Mills, of Rock Hill, will be merged into one corporation to be known as Textiles, Inc., at a meeting to be held in York, November 22.

The new corporation is formed by the same interests that formed Textiles, Inc., at Gastonia, N. C., recently. The two South Carolina plants were not included in the controlled by Textiles, Inc. formation some time ago because they are located in another State and a separate organization was therefore required.

CONCORD, N. C.—The Mount Pleasant Hosiery Mills, Inc., a new textile concern, has started operations in the old Foil building at Mount Pleasant. Officials of the new corporation include Paul Foil, president; L. E. Foil, secretary and treasurer, and B. F. Stewart, general manager and superintendent. The plant is equipped with fifty-four machines and has a daily capacity of 340 dozen pairs of hose. Products manufactured include cotton, silk and rayon hose, and also fine woolen hosiery. At present the plant is operating only part time. However, it is expected that full-time operation will come within the next few weeks. Twenty-six persons are now employed.

SPARTANBURG, S. C.—At the annual meeting of the board of directors of Spartan Mills, held here, B. M. Montgomery was re-elected president; Walter S. Montgomery, treasurer; George H. Cornelison, assistant treasurer, and E. M. Mathews, secretary.

Members of the board of directors are: H. A. Hatch and G. H. Milliken, of New York; B. M. Montgomery, W. S. Montgomery, and V. M. Montgomery and W. J. Britton.



## MILL NEWS ITEMS

GREENVILLE, S. C.—The Piedmont Shirt Company, of Greenville, headed by Shepherd Saltzman, has secured larger quarters in the building on East Court street formerly occupied by the American Cigar Company, and will very greatly increase its equipment, personnel and output.

This company, which began business slightly more than four years ago with 25 machines and 35 employees, will install a total of 220 machines in its new quarters and will employ approximately 300 persons. The daily output will be about 500 dozen shirts.

ROCKINGHAM, N. C.—Hannah Pickett Manufacturing Company and Entwistle No. 1 Mills have changed their working hours to provide for a shutdown of all mill machinery for the noon dinner hour. This was one of the requests made by employees during the recent strike at the mills, but was refused by the mill management at the time the mills reopened.

The mills are now working on a 55-hour week schedule. Entwistle Mill No. 2 is now working around 175 operatives as compared with 75 a month or so ago. This mill is at East Rockingham and was formerly known as Roberdel No. 2.

CHARLOTTE, N. C.—Haywood, Mackay & Valentine, Inc., has been appointed sole selling agent for the products of the Highland Park Manufacturing Company, of Charlotte, and the Cornelius Cotton Mills, of Cornelius, N. C.

The firm of Haywood, Mackay & Valentine was organized on January 1, 1930, to continue the business of the T. Holt Haywood Department of Fred'k Viator & Achelis, Inc. Steady growth has been noted, with the addition of several large groups of mills, including the Eagle & Phenix Mills, of Columbus, Ga., and the Dacotah Cotton Mills, of Lexington, N. C., and now the important mills mentioned above.

LINCOLNTON, N. C.—The Carter Mills No. 1, here, and the Carter Mills No. 2, Taylorsville, which have heretofore not been corporations, have taken out charters.

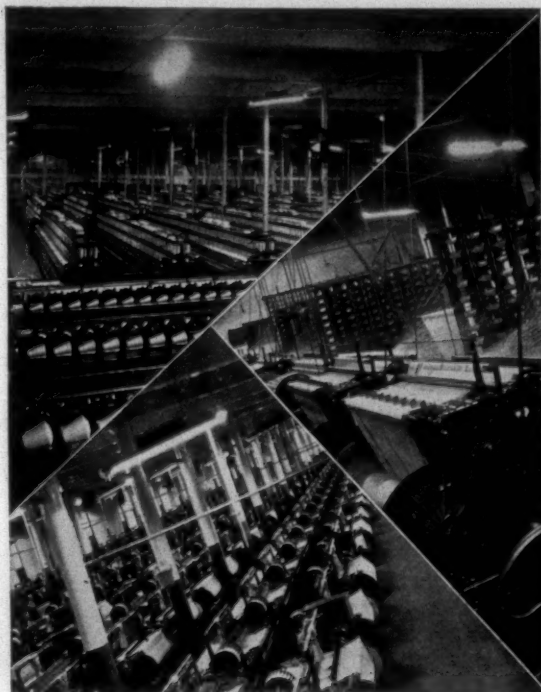
Carter Mills No. 1, Inc. Principal office Lincolnton, N. C. To manufacture and deal in all kinds of textile fabrics. Authorized capital stock 1,000 shares of no par value. Subscribed stock 4 shares, by A. B. Carter, A. Dewey Carter, E. S. Kempton and E. H. Gregg, of Gastonia, N. C.

Carter Mills No. 2, Inc. Principal office Taylorsville, N. C. To manufacture and sell all kinds of textiles. Authorized capital stock 1,000 shares of no par value. Subscribed stock 4 shares, by A. B. Carter, A. Dewey Carter, E. S. Kempton and E. H. Gregg, of Gastonia, N. C.

### Print Cloth Mills To Form Group

Spartanburg, S. C.—At a meeting of print cloth and narrow sheeting manufacturers held here, attended by more than twenty-five mill executives, representing 45,378 looms, problems of peculiar interest to the industry were discussed and plans were made to perfect further

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MODERN INDUSTRY DEMANDS COOPER HEWITT LIGHTING

## MILL NEWS ITEMS

organization of this group, according to announcement of William D. Anderson, president of the Bibb Manufacturing Company, Macon, Ga., who presided.

Chairman Anderson appointed two committees, one to confer with mill executives and managers, the other to confer with selling agents. The mill men's committee consists of J. Choice Evins, president of the Clifton Mills; C. M. Bailey, head of Lydia Mills, Clinton; L. O. Black, of Balfour Mills, Hendersonville; Marshall Orr, of Orr Mills, Anderson; E. W. Johnston, of Woodside Mills, Greenville.

The committee to canvass selling agents is composed of Willard Baldwin, of Woodward-Baldwin Company; G. H. Milliken, of Deering-Milliken Company, and David Jennings, of J. P. Stevens & Co.

The new organization in process of formation, name for which has not been decided upon, is for the purpose of forming an association of mills manufacturing print cloth construction.

Both committees will report to Chairman Anderson after making a thorough canvass in their respective fields, and the chairman is authorized to call the two committees together at some near future date.

At the meeting its promoters had 3,000 looms represented, in addition to the number represented by those in attendance, according to announcement. It was also stated that the proposed organization is separate and distinct from any other in textiles.

### Cotton Carryover Smaller

Atlanta, Ga.—For the first time in four years the cotton carryover on July 31, 1933, promises to be smaller than on the same date a year before, Carl Williams, of the Federal Farm Board, said here.

He made the prediction in outlining the speech he planned to make at a luncheon meeting of the Southern Agricultural Outlook Conference.

Acreage has been reduced in this country to a "normal production basis," he said, and granted even a slow return to normal business conditions over the world, increased demand will eventually eat up the existing surplus.

Williams emphasized, however, that he would not recommend any increase in acreage. He said the acreage in cultivation this year, reduced approximately 10 per cent from last year, would be all the market could stand at least for several years.

Such conferences as the one at which he spoke, he said, from the basis of the only hope of the farmer for rationally planned planting, and the sole guidance for agencies of government in working for farm prosperity.

The meeting gathered experts of State agriculture departments, educational institutions and experiment stations of eleven Southern States to confer with officials of the United States Department of Agriculture on the prospects for the coming year in agriculture.

Farm credits and the demand for farm products were discussed in executive session this morning. A statement outlining the views expressed was being prepared to be issued this afternoon.

Heretofore, said Williams, farmers always have planned their planting in terms of the market situation they encountered last year but "if they are to be successful, they must plant in terms of next fall's probable conditions."

"The farmer," he added, "can't answer the question of what next fall will bring for himself. The Department of Agriculture, the colleges, and the farm board, with their resources of research and information can do it. We are doing it here. Our job is to educate the educators—the county agents and others interested in agriculture—so that they may pass the information on to their people. We are giving them the results of research work in national and world markets since last year."

He said results achieved by such meetings as this had been "very show but good." He pointed to this year's cotton acreage reduction as "undoubtedly the result of information passed on to the farmers in such conferences."

### LOOMS FOR SALE

292—44" Model "K" Draper Looms, 1923. Belt drive, worm take-up, friction let-off, 4 bank stop motion, 6 harness Lacey top. 92 with Midget feelers. 200 with Intermittent feelers.

166—40" Draper Model "K" Looms, 1916. As above only equipped with double arches and 20 harness dobbles.

100—Draper Model "E" Looms, 44" Cloth. Perfect operating condition. 2 harness work, Roper let-off, 3 bank stop motion, belt drive at \$12.00 each loaded.

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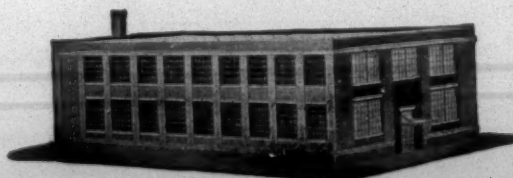
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Textile Supply Co., Texas Representative, Dallas, Texas





## Master Mechanics Meet At Spartanburg

(Continued from Page 10)

your ground, it will be much better. Do that three or four times a year.

Mr. Gilliam: There was a case where I was called in because of trouble; one particular motor at the mill gave trouble all the time. As fast as they would repair it it would give trouble again. It was in the old days. I knew there was something unusual about that motor and made an investigation. I found the sprinkler pipe had come loose and was lying on the frame of the motor. We tacked that up, and they had no more trouble with that than with the rest of the motors.

Chairman: Let's go on: "What is the best method of handling light cost and maintenance in the village?"

### COST OF LIGHT IN VILLAGE

Mr. West: Meter all the houses, so they will cut out the two-hundred-watt bulbs and the ten-cent toasters. We have reduced the power sixty per cent. Charge them for everything they use.

Mr. Iler: We had the same experience, except the management decided to allow each consumer so much current per room per month and to charge for the excess over that. I believe a four-room house or a five-room house is allowed 20 kilowatt hours a month. We cut our consumption in the village just about in half. As Mr. West said, it will eliminate all the big lamps and the ten-cent toasters and things like that. Our people liked it after they got used to economizing on it.

Mr. C.: We put in meters and cut our consumption over half.

Question: What do you charge?

Mr. Iler: We charge six cents.

Mr. Hewett: Two cents for electric ranges and five cents for lighting.

Question: What arrangement have you made in your village to care for installing the meters?

Mr. D.: We had some houses in our village where the lights ran up to \$10 or \$15 a month. After installing the meters it ran around \$1.50 to \$2.00 a month.

Mr. Young: We borrowed a meter from the Duke Power Company to make a test. The first month we used 18,000 kilowatts in the village. We have an officer who goes around, and he checked up on this thing. We brought it down in one month to 10,000; the next month to 8,000; and the third month to 5,000.

Chairman McWhirter: Has anybody figured the cost of these meters and how long it would take to pay for them from the saving in power?

Mr. West: Our meters cost \$7.75 apiece. Before we installed those meters, over the week-end the power from Saturday noon to Monday morning would run from 6,000 to 8,000 kilowatt hours; and since the meters have

## SUPERINTENDENTS AND OVERSEERS

We wish to obtain a complete list of the superintendents and overseers of every cotton mill in the South. Please fill in the enclosed blank, and send it to us.

\_\_\_\_\_, 193\_\_\_\_

Name of Mill \_\_\_\_\_

Town \_\_\_\_\_

Spinning Spindles \_\_\_\_\_ Looms \_\_\_\_\_

Superintendent \_\_\_\_\_

Carder \_\_\_\_\_

Spinner \_\_\_\_\_

Weaver \_\_\_\_\_

Cloth Room \_\_\_\_\_

Dyer \_\_\_\_\_

Master Mechanic \_\_\_\_\_

Recent changes \_\_\_\_\_



Cotton Card Grinders

Woolen and Worsted  
Card Grinders

Napper Roll Grinders

Calender Roll Grinders

Shear Grinders

**B. S. ROY & SON COMPANY**

Established 1868

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**ROY TEXTILE  
GRINDING  
MACHINERY**



Dixon's Patent Reversible and Locking in Back Saddle with New Oiling Device three Saddles in one, also Dixon's Patent Round Head Stirrup.

Send for samples  
**DIXON LUBRICATING SADDLE CO.**  
Bristol, R. I.



### Victors for Uniformity



When you renew your stock of any size or style of Victor Ring Travelers, you are sure of getting IDENTICAL travelers. Uniform in weight, same degree of polish, accuracy of circle, and same degree of hardness. All this helps in uniform spinning.

#### VICTOR RING TRAVELER COMPANY

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Providence, R. I.

Southern Agent, A. B. CARTER

Room 615, Commercial Bldg., Gastonia, N. C.

Southern Representatives

A. Dewey Carter

Gastonia, N. C.

N. H. Thomas

Gastonia, N. C.

B. F. Barnes, Jr., 520 Angier Ave., N. E. Atlanta, Ga.

been installed it runs from 800 to 1,000. If it runs that way all the time, all the year around, it would take only a few months to pay for a meter.

#### DUTIES OF MASTER MECHANIC

Chairman McWhirter: "What are the duties of the master mechanic in general?" That is the next question, and I am sure you can all talk on that.

Mr. Iler: I know the answer to that in a few words. Some years ago the representative of one of the textile publications asked me that question. I don't know that I had ever been asked it before. It came into my mind to answer him in this way: "Our duties are to do everything that everybody else can not or will not do."

The meeting closed with short talks by several members on the value of the Southern Textile Association.

It was voted to meet next in Charlotte.

### KNITTING TRADE NOTES

(Continued from Page 16)

positioned presser and hold it against vertical movement."

To Frank W. Robinson, Reading, Pa., on a high splice attachment for circular knitting machines. One of the claims:

"A circular hosiery knitting machine having needles and yarn supplying fingers including a high splice yarn finger in combination with means for bringing the high splice yarn finger and needles into and out of yarn engaging position, during round and round knitting, and means for gradually varying in different courses the number of needles supplied with high splice yarn, up to approximately a half circle of the needles, to thereby make the high splice tapering in configuration, with unknitted portions of the high splice yarn floated across the circle of needles at successive courses."

Patent on a knitting machine issued to Robert H. Lawson, Pawtucket, and Arthur N. Cloutier, Lonsdale, R. I. The claim states:

"A latch ring, yarn guides mounted therein, an opening for the yarn guides being provided in the latch ring, a bar slidable transversely across said opening, and adapted to be yieldingly maintained in such position, said latch ring and bar being pivoted substantially coaxially, whereby when the latch ring swings away from the needle cyl-

inder to any position desired, the bar may swing with it without being retracted from its position across the said opening in the latch ring."

### Bibb Working Capital \$6,079,918

Macon, Ga.—Bibb Manufacturing Company closed its fiscal year August 31, 1932, with working capital of \$6,079,918, and with current assets 16.4 times current liabilities. The company finished the year with a net profit of \$133,570, after dedusting estimated taxes of \$18,500 and approximate depreciation of \$645,000. In the preceding fiscal year, Bibb reported net profit of \$1,050,087.

Per share earnings for the last fiscal period were 67 cents on 200,000 shares of common stock, against \$4.52 a share on the same number of shares a year ago. Surplus at the close of the year amounted to \$3,366,940.

### Interwoven Orders Break Record

The Interwoven Stocking Company booked orders for more dozens in October than in any one of the past 46 months, according to John Wyckoff Mettler, president of the company.

The October rise came after an increase in dozens in September of about 20 per cent over the same months of 1931, he stated.

Interwoven orders in dozens compared with October last year ran as follows:

For immediate delivery, 42½ per cent over last October, and for future delivery, 73½ per cent over October, 1931.

### Mills Plan Bigger Payrolls

Greenville, S. C.—A plan through which mill men of the Piedmont section hope to put many unemployed back on the payrolls, co-operating with President Hoover's share-the-work movement, is expected to begin taking shape soon at a conference between J. C. Self, of Greenwood, district chairman of the movement, and a newly-appointed committee composed of James P. Gossett,

# VICTOR MILL STARCH

*"The Weaver's Friend"*

It BOILS THIN . . . . . penetrates the  
WARP . . . . . carries the weight into the  
cloth . . . . . means good running work . . . .  
satisfied help and 100% production.

*We are in a position to offer  
Prompt Shipment*

## THE KEEVER STARCH COMPANY

COLUMBUS, OHIO

DANIEL H. WALLACE, Southern Agent, Greenville, S. C.

C. B. Iler, Greenville, S. C.

F. M. WALLACE, Columbus, Ga.

L. J. Castile, Charlotte, N. C.



Greenville; M. L. Smith, Laurens, and C. B. Hayes, of Lyman.

The movement was brought forcefully before Greenville manufacturers and others a few days ago with the visit here of Walter C. Teagle, president of the Standard Oil Company of New Jersey, and national co-ordination chairman of the employment movement. When Mr. Teagle was called away, he left his co-worker, Mr. Pearce, here to present the plan to a group of men at a called meeting, presided over by S. M. Beattie, of Piedmont.

Following Mr. Pearce's remarks, Mr. Beattie's committee concluded that the best way to handle the situation would be to appoint a committee to confer with Mr. Self with a view to creating ways and means for textile manufacturers in this section to put as many men to work as possible.

## The Lubrication of Ball and Roller Bearings

(Continued from Page 15)

a soap deposit in the bearing which may crystallize and serve as an abrasive instead of a lubricant.

In grease lubrication it is just as important to select the proper grade or consistency of grease as it is to use a high quality grease. The tables below have been prepared as a result of wide experience in lubricating anti-friction bearings in industrial equipment. They show the approximate viscosity of oil and consistency of greases to be used under any combination of loads, speeds and operating temperatures. Most operating engineers readily recognize the need of using different grades of oil to meet different operating conditions and would not think of using the same oil in a small motor bearing that they

would use in a large bearing operating under heavy loads and possibly at elevated temperatures. It is not so well recognized that the same factor should be considered in selecting grease. By checking your operating conditions against the tables below it will usually be found that two or possibly three different grades of grease should be available in order to ideally meet the grease lubrication requirements of all types of equipment.

### OIL RECOMMENDATIONS

SAYBOLT VISCOSITY OF RECOMMENDED OIL AT 100° F.

Operating Temp. °F.	Normal Loads and Speeds	Normal Loads and High Speeds	Heavy Loads Normal Speeds
0-32	100*	82*	100*
33-60	100*	82*	120*
61-95	105	82	160
96-125	160	100	400
126-150	530	400	700
151-180	945	530	1500
181 and over	Steam Cyl. Oil	1500	Steam Cyl. Oil

Note: \*These oils should have a cold test of not less than 35° F.

### GREASE RECOMMENDATIONS

Operating Temp. °F.	Normal Loads and Speeds		Normal Loads High Speeds		Heavy Loads Normal Speeds	
	Consistency	Melting Pt. °F.	Consistency	Melting Pt. °F.	Consistency	Melting Pt. °F.
0-30	Soft	150	Soft	150	Soft	150
31-75	Soft	150	Soft	150	Soft	150
76-100	Med.	160	Med.	160	Med.	160
110-150	Med.	250	Med.	250	Hard	300
151-170	Hard	300	Hard	300	Extra Hard	350
171 and over	Steam Cyl. Oil		Steam Cyl. Oil		Hvy. Steam Cyl. Oil	

## Books That Will Help You With Your Problems

### "Clark's Weave Room Calculations"

By W. A. GRAHAM CLARK

*Textile Expert of U. S. Tariff Commission*

Second edition. Completely revised and enlarged. A practical treatise of cotton yarn and cloth calculations for the weave room. Price, \$3.00.

### "Practical Loom Fixing" (Third Edition)

By THOMAS NELSON

Completely revised and enlarged to include chapters on Rayon Weaving and Rayon Looms. Price, \$1.25.

### "Carding and Spinning"

By GEO. F. IVEY

A practical book on Carding and Spinning. Price, \$1.00.

### "Cotton Mill Processes and Calculations"

By D. A. TOMPKINS

Third edition. Completely revised. An elementary text book for the use of textile schools and home study. Illustrated throughout. Price, \$1.00.

### "Remedies for Dyehouse Troubles"

By WM. C. DODSON, B.E.

A book dealing with just that phase of dyeing which constitutes the day's work of the average mill dyer. Price, \$1.50.

### "Cotton Spinner's Companion"

By I. C. NOBLE

A handy and complete reference book. Vest size. Price, 50c.

Published By

**Clark Publishing Company**

CHARLOTTE, N. C.

## Rayon Industry Operating At 100 Per Cent

The rayon yarn producing industry of the United States produced at the rate of 100 per cent of operating capacity during the month of October as against 90 per cent of capacity in September, states the current issue of the "Textile Organon," published by the Tubize Chatillon Corporation. No slackening of demand is apparent at the present time, it is added. The volume of rayon shipments in October showed little diminution from the high rates of September. The market at the present time is strong as yarn for spot delivery is generally not available.

Regarding rayon prices for the near future, the publication states that it appears feasible that prices probably will not be raised before the first of the new year. With the current high rate of production and shipments, most rayon producers are probably able at least to break even, or even make a little money on their operations; the third quarter earnings statements of rayon producers need not reflect disagreement with this statement because the first five or six weeks of the third quarter was a very lean period indeed for the producers as regards shipments and production.

In connection with a survey made regarding the future of the rayon industry the publication says: "The demand for rayon will continue active well on into 1933 at least, not only because of its own momentum, but also because of the favorable, lateral assistance which will be given rayon by other branches of the textile industry in the next three months."

## Trend Toward Quality Rayons

The trend toward quality merchandise in the rayon field has become increasingly noticeable during the past few weeks as is evidenced by the growing list of retailers who have stocked tested quality curtains, draperies and piece goods in expectation of the autumn consumer demand for quality goods, according to J. A. Spooner, merchandising director of The Viscose Company, sponsors of the Tested-Quality Control Plan.

"Without the expense of maintaining their own laboratory, but merely by choosing tested fabrics from licensees under the plan," Mr. Spooner stated, "retail stores can now answer

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with finality every consumer question about wearing qualities and washing, color fastness and dry cleaning on rayon curtains and drapery weaves. This same sales advantage applies to piece goods, too. It appears that the whole tested-quality movement is meeting consumer demand for proved value and is helping many retailers to realize a profit on rayon as never before."

## Rock Hill Brought Into Suit

York, S. C.—Judge T. S. Sease directed that the City of Rock Hill be made a defendant in the \$25,000 suit of Levy Deas against the Rock Hill Printing and Finishing Company

because of alleged pollution of fishing creek, which flows through his farm.

At a hearing it was revealed the company has a contract with the city binding the latter to bear any loss suffered by the company from damage suits resulting from the emptying of waste matter in the sewerage system.

## PATENTS

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434 Munsey Building  
Washington, D. C.  
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## High Speed Winding and Warping In England

**I**NCREASING interest in high speed winding and warping is being shown in English mills. The Manchester Guardian gives the following information on the subject:

A developing feature of yarn preparation during recent years has been high-speed winding and warping, and many machines, varying considerably in their design and construction, have been introduced to operate on this principle. Although high-speed warp preparation is used more extensively in America than in Lancashire, there are signs that high-speed processing will in England form an important phase of operation in the preparation of yarns for hosiery, beaming and doubling. Of the various systems of high-speed winding and warping which are in use today, the following are probably the most popular, (a) winding on to parallel cheeses and warping from the side, (b) cone winding and warping from the end of cones placed in single and magazine creels, (c) bottle bobbin winding and warping from the end of bottle bobbins in single and magazine creels.

In the first system the winding machine is fully automatic, the whole operation, from ejecting empty ring bobbins, replacing by full ones, and tying up the threads, to stopping the cheese when a thread breaks and starting again when the end is tied up, being automatically performed by the machine itself. The operative has nothing to do except keep the machine supplied with full ring bobbins. The winding machine incorporates some intricate and expensive mechanisms, but builds a very firm and reliable cheese of about three inches traverse by a system of winding from the end of ring bobbins. In the warping machine the yarn is drawn from the side of the cheeses, which revolve on ball bearings, for which there are special containers.

### USE SPECIAL BEAMS

Special beams are used with barrels of about nine inches diameter and speeds up to about 500 yards per minute are attained. The machine is necessarily fitted with a stop motion, working on the electrical system whereby a quick stoppage is secured when an end breaks. To make the stoppage instantaneous a separate brake is applied to each cheese in the creel, and at the same time an efficient brake is applied at the warping headstock to bring the beam to an immediate stop. There are no drop rollers fitted to the machine so that it is not possible to turn back to find the broken end.

In the second system, that of cone winding and warping from the end of cones, the cone winding machines are mostly of the high-speed type and of about six inches traverse, capable of attaining speeds of 500 yards per minute. A feature of this system is the long length of yarn which can be placed on the cones the weight of which often reaches  $2\frac{3}{4}$  pounds. The winding speed is kept constant during winding, and compared with the ordinary type of winding unit, there is a considerable increase in the production per spindle and therefore a great saving in the floor space taken up by winding plant. The shape of the cones is such as to facilitate drawing the thread from the end.

### TYPES OF MACHINES

Of the many types of cone winding machines now on the market probably the most unorthodox in construction and simple in operation employs a method of tra-

versing the yarn, whereby cams and oscillating members, such as are normally employed in these machines, are eliminated. The yarn is guided by grooves cut into a bakelite roller or drum which rotates the cone by frictional contact, and revolves to guide the yarn across the face of the cone. To secure perfect control of the yarn at high speeds much consideration has had to be paid to the construction of the guiding surfaces of the roller, which take the extending along its length. Perfect guiding, therefore, is attained by forming the grooves so that the bottom of one is at a different level from that of the other at the point where crossing takes place. The projecting point, which separates one groove from the other at the crossing position, is chambered to obtain proper yarn control and guidance at that point. By adopting this construction the possibility of the yarn retracing its path before reaching the end of the traverse is avoided even at abnormally high speeds.

It will be evident that the machine differs from the usual type of winding unit in that the driving medium—the grooved roller or drum—is also the traversing or guiding member. This constitutes an important advantage and is a primary reason for the high speeds which are permissible without incurring any friction, wear, or defective building of the cone.

### USE OF BOTTLE BOBBINS

In the third system of high speed processing, whereby bottle bobbins are used, the machine is very similar to the upright spindle winding unit, although a special machine for bottle bobbin winding on the high speed system is produced. The amount of yarn contained on a bottle bobbin is scarcely as great as that on a cone, but from such a bobbin two or more beams can be made from one ceiling. The ease and economy with which existing winding plant can be converted to high speed work is frequently an important factor in deciding the policy to be pursued by a manufacturer and in this respect the bottle bobbin system shows up favorably.

The only trouble in converting old winding frames to bottle bobbin winding is that the pitch of the spindles is such that only a certain diameter of flange can be used, which may mean that it will not be possible to get two beams from one bobbin. Such reasoning would only apply where single bottle bobbin creels were used, for with magazine creels there is no stoppage for creeling—an operation which greatly curtails production.

Regarding the creels used, the single bottle bobbin and cone creels are similar, but the former is made a smaller gauge owing to the smaller diameter of the package.

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**Southern Textile Bulletin**

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Boston, Mass.

## COTTON GOODS

New York.—Trading in cotton goods was slow during most of the past week, but large buying of gray goods developed on Saturday. A considerable number of buyers were in the market in a pre-election covering movement that resulted in large sales. It was estimated that more than 10,000,000 yards of print cloths were sold on Friday afternoon and Saturday. Price weakness in these goods was wiped out and deliveries for the remainder of this year advanced an eighth cent a yard and were paid promptly. Goods wanted for shipment after the first of the year were available only in limited quantities at prices current on Saturday. A pleasing part of the situation was that buying was general rather than coming from on a few buyers.

Carded broadcloth sales were large beginning Friday. The 80x56s were tight at  $3\frac{1}{2}$  cents at the opening, and good sales were made at that figure. Later,  $3\frac{5}{8}$  cents was generally quoted for November and December, with  $3\frac{1}{2}$  cents quoted in a few centers for January and forward. The 100x60s moved in a good way at  $4\frac{3}{4}$  cents for November-December deliveries, and by noon all goods offered for delivery within the remainder of the year were quoted at  $4\frac{7}{8}$  cents, which was paid for some goods. Some business was put through for January and ?

Fine goods at the week-end were still only moderately active at best. There had been during the week few changes in prices of any of the staple fine yarn cotton constructions, and, while there was spasmodic buying of moderate quantities, the bulk of this was for immediate requirements. Semi-staple and novelty goods were still active, and sales of this type of goods during the week ran into appreciative volume. In fact, it was mainly the novelty fine goods business which was keeping up the courage of fine goods mills generally, and the strength shown in such goods was sufficient to prevent declines in the staple divisions.

Print cloths, 28-in., 64x60s	27 $\frac{1}{8}$
Print cloths, 27-in., 64x60s	23 $\frac{3}{4}$
Gray goods, 38 $\frac{1}{2}$ -in., 64x60s	37 $\frac{1}{8}$
Gray goods, 29-in., 80x80s	5 $\frac{1}{4}$ -5 $\frac{1}{8}$
Gray goods, 39-in., 80x80s	5 $\frac{1}{4}$ -5 $\frac{1}{8}$
Brown sheetings, 3-yard	6
Brown sheetings, 4-yard, 56x60s	5
Brown sheetings, standard	6
Tickings, 8-ounce	11 $\frac{1}{2}$
Denims	10 $\frac{1}{2}$
Dress gingham	10 $\frac{1}{2}$ -13
Standard prints	7 $\frac{1}{2}$
Staple gingham	6 $\frac{1}{2}$

### Constructive Selling Agents for

Southern Cotton Mills

J. P. STEVENS & CO., Inc.

44 Leonard St.  
New York City



## YARN MARKET

New York.—The market for cotton goods continued very slow during the week. The average buyer was interested only in small lots and felt that he could continue to fill in from dealers and spinners' stocks for an indefinite time. Such stocks are not large, but during the past few weeks have been large enough to meet day to day demand. Although the volume of business done since August has been very large, yarns have apparently gone into consumption very promptly and most consumers have not built up stocks. For this reason it is felt that buying for spot and prompt delivery will again be active within a short time. On account of the double holiday, election and Armistice day, this week, and the crop report due Wednesday, it was felt that little trading would be evident before the middle or latter part of the month.

In the carded yarn division the most frequently sought yarn applied on spots and nearby. Only occasionally have buyers concerned themselves with estimating their early next year's requirements. The result is that spinners see the next thirty days opening a wider margin of production within their plants which they desire to see more completely taken care of.

In knitting yarns, shipments are moving out at a rate not often exceeded during the last three years, but unfilled bookings among the sale yarn mills in this department remain larger than any period prior to August, back to last winter. Some combed peeler yarn mills are now operating at the rate of 55 hours a week, but the majority are running between 45 and 50, working only against shipping instructions.

Combed and mercerized qualities are quiet. New business in the former is being delayed and shipments on old orders are not as large as two weeks ago. Lower prices have proved to be no incentive for buyers. Processed counts are moving fairly well on old orders, but new business small. Processors say that no change in prices is contemplated following the recent combed reduction, pointing out that processing margins "are only getting back to normal."

Southern Single Warps		30s	
10s	13 a	19	a19½
12s	13½a	40s	25 a
14s	14 a	40s ex.	26½a
16s	14½a	50s	30½a
20s	15 a15½	60s	35 a
26s	17½a18	Duck Yarns, 3, 4 and 5-Ply	
30s	18½a19	8s	13 a
Southern Two-Ply Chain Warps		10s	13½a
8s	13 a	12s	14 a
10s	13½a	16s	15 a
12s	14 a	20s	16 a16½
16s	15 a	Carpet Yarns	
20s	16 a	Tinged carpet, 8s, 3	
24s	17½a	and 4-ply	
30s	19 a19½	Colored strips, 8s, 3	
36s	24 a	and 4-ply	
40s	25 a	White carpets, 8s, 3	
40s ex.	26½a	and 4-ply	
Southern Single Skeins		Part Waste Insulating Yarns	
8s	12½a	8s, 1-ply	
10s	13 a	10s, 2, 3 and 4-ply	
12s	13½a	10s, 2, 3 and 4-ply	
14s	14 a	12s, 2-ply	
16s	14½a	16s, 2-ply	
20s	15 a15½	20s, 2-ply	
26s	17½a18	26s, 2-ply	
30s	18½a19	30s, 2-ply	
36s	19½a20	Southern Frame Cones	
Southern Two-Ply Skeins		8s	
8s	13 a	10s	
10s	13½a	12s	
12s	14 a	14s	
14s	14½a	16s	
16s	15 a	18s	
20s	16 a	20s	
24s	17½a	22s	
26s	18 a	24s	
		26s	
		28s	
		30s	

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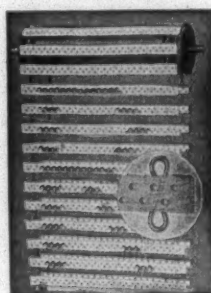


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**SONOCO PRODUCTS CO.,** Hartsville, S. C.

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**STANLEY WORKS, THE,** New Britain, Conn. Sou. Office and Warehouse: 552 Murphy Ave., S.W. Atlanta, Ga., H. C. Jones, Mgr.; Sou. Reps.: Horace E. Black, P. O. Box 424, Charlotte, N. C.

**STEEL HEDDLE MFG. CO.,** 2100 W. Allegheny Ave., Philadelphia, Pa. Sou. Office and Plant: 621 E. McBee Ave., Greenville, S. C. H. E. Littlejohn, Mgr., Sou. Reps.: W. O. Jones and C. W. Cain, Greenville Office.

**STEIN, HALL & CO., INC.,** 285 Madison Ave., New York City, Sou. Office, Johnston Bldg., Charlotte, N. C. Ira L. Griffin, Mgr.

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**U S ROBBIN & SHUTTLE CO.,** Manchester, N. H. Sou. Plants: Monticello, Ga. (Jordan Division); Greenville, S. C.; Johnson City, Tenn. Sou. Reps.: L. K. Jordan, Sales Mgr., First National Bank Bldg., Charlotte, N. C.

**U. S. RING TRAVELER CO.,** 159 Aborn St., Providence, R. I. Sou. Reps.: Wm. P. Vaughan, Box 792, Greenville, S. C.; O. B. Land, Box 4, Marietta, Ga. Stocks at: Textile Mill Supply Co., Charlotte, N. C.; Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Carolina Mill Supply Co., Greenville, S. C.; Sullivan Hdw. Co., Anderson, S. C.; Fulton Mill Supply Co., Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.

**VEEDER-ROOT, INC.,** Hartford, Conn. Sou. Reps.: W. A. Kennedy Co., Johnston Bldg., Charlotte, N. C.; Carolina Specialty Co., 122 Brevard Court, Charlotte, N. C.

**VICTOR RING TRAVELER CO.,** Providence, R. I. Sou. Offices and Warehouses: 615 Third National Bank Bldg., Gastonia, N. C., A. B. Carter, Mgr.; 520 Angier Ave., N. E., Atlanta, Ga., B. F. Barnes, Mgr., Sou. Reps.: B. F. Barnes, Jr., Atlanta Office; A. D. Carier and N. H. Thomas, Gastonia Office.

**VISCOSE CO.,** Johnston Bldg., Charlotte, N. C. H. Wick Rose, Mgr.

**WHITIN MACHINE WORKS,** Whitinsville, Mass. Sou. Office: Whitin Bldg., Charlotte, N. C., W. H. Porcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reps.: M. P. Thomas, Charlotte Office; I. D. Wingo and O. M. Powell, Atlanta Office.

**WHITINSVILLE SPINNING RING CO.,** Whitinsville, Mass. Sou. Rep.: Webb Durham, 2029 East Fifth St., Charlotte, N. C.

## Cleveland Cloth Mill Has New Fabrics

Shelby, N. C.—The Cleveland Cloth Mill of Shelby, Governor O. Max Gardner, president, opened a display of its new fall fabrics in the Gardner Building on Warren street today. The display will be on during the month of November and may be repeated for a week or ten days each succeeding season if sufficient interest is manifested.

The Cleveland Cloth Mill is engaged exclusively in the manufacture

of dress goods, and has this season produced a large line of attractive fall patterns.

In the advertisement which it ran this week in the local newspaper, it stated: "Those who wish to make a new silk dress or a dress of rayon and mixed novelty weaves can get the cloth for a few dollars. Flat crepes worth 90c are being sold for 35c per yard, novelty rayon crepes worth \$1.38 at 75c per yard and novelty silk worth \$2.98 at 95c per yard. We have an excellent assortment of satins worth \$1 to \$2.50 per yard priced from 50c to 90c per yard. Taffetas and rayon crepes of the latest styles and colors are selling at less than half their worth."

## New Dayton Catalog

The Dayton Rubber Manufacturing Company of Dayton, Ohio, is now distributed a new condensed catalog on Dayton Cog-Belt Drives which has been prepared in response to numerous requests for a more compact edition adaptable for office files or for sectional catalog binders.

In spite of its compactness, no data has been omitted. And the selection of the proper Standard Drive for any condition has been further simplified. Complete prices and dimensions are included as well as simplified data for the calculation of special drives where required.

## Less Denim Used

Washington—A decline in the consumption of denims for the year 1931, as compared with 1929, is indicated in the census of the men's work clothing industry, just given out by the Department of Commerce.

On the other hand, the same figures indicate a fair increase in the consumption of other piece goods than denims for work clothing, during the year as against 1929.

## Cloth Market Dull

"As we anticipated, this has been another quiet week with sales about in line with those of last week. There has been some further easing in prices of grey goods; print cloths were off another one-eighth cent and as a result a little business was stimulated. While many mills are not interested in selling at today's prices there has been sufficient pressure to keep the market unsettled, and it seems futile to keep forcing goods on the market when so little can be accomplished in the way of stimulating volume. The same situ-

ation that applies to print cloths can be applied to most constructions of carded broadcloths; there has been some bidding at concessions for narrow sheetings but apparently the market on these constructions is holding a little better than on broadcloths and print cloths. Colored goods generally have been quiet with the exception of flannels and cotton suitings on which some business has been placed. On household goods, such as towels, sheets and pillow-cases, etc., there has been very little activity which is natural at this time of the year," the Hunter Manufacturing & Commission Company reports.

## Winchester Says Faith in Textile Future Is Needed

Spartanburg, S. C.—A plea for greater faith and co-operative effort with respect to the textile industry was made by W. E. Winchester of New York city, prominently identified with the textile industry, in an address before a Spartanburg civic club, he being here with a group representing the Deering-Milliken interests to inspect plants in which they are interested in this section of the Southeast. Mr. Winchester is also president of the Judson Mills, the Gainesville (Ga.) Mills of the Whitney mills.

Pointing out that "textiles are lower and have been going lower for the last three years," and asserting that they "reached the depths this summer and are going to come up somehow," the speaker declared that the troubles of the industry are due to "a lack of profits and a lack of faith." The law of supply and demand cannot be modified, he said, because it is not possible to control demand, but "If we had faith we could bring production in accord with demand."

The loss of profits began in 1928, he explained, and at that time "efforts were made to find out the amount of goods produced and sold. In that way it was hoped that production would be adjusted." The work of educating manufacturers along sound economic lines is now being done by the Cotton Textile Institute he declared.

The speaker emphasized the need of action "on sound economic principles" and stated that "co-operative effort with the proper amount of faith will bring us to the point we want to reach." He is doubtful whether "a resort to new laws is advantageous," but added that "certain tendencies lead us to believe that something will be done about shorter hours."

# Mill Village Activities

*Edited by Mrs. Ethel Thomas Dabbs—"Aunt Becky."*

## BURLINGTON, N. C.

### GLENCOE MILLS

Was sorry I was a little too early to get subscriptions from the good overseers here, but Mr. Robinson, the superintendent, has invited me back later on and said he would work with me to get 100 per cent. Glencoe has just started full time operations after an idleness of six months' duration. Thanks, Mr. Robinson, we'll be seeing you later. The overseers are: Ed Marshall, carder; John Cook, spinner; Franklin Swearingen, weaver (no kin to the R. R. boys); O. N. Mansfield, napper; Clyde Mansfield, dyer, and Claud Ross, master mechanic.

### E. M. HOLT PLAID MILLS

I saw machines and work here that I have never seen before; of course there are plenty more of them besides this one, but to my opinion there couldn't be any prettier work. Silk weaving is beautiful as well as complicated, and requires close attention, and from observation the overseers are strictly business when on the job, but they always find time to give us courtesies. Mr. Copeland, the congenial superintendent, has his subscription paid up till 1936. His overseers are: G. S. Gregg, weaver; Whitley Griffin, preparation department; John Kinney, master mechanic; C. R. Ephland, dyer; A. C. Gregg, knit department; J. A. Webster, cloth room finishing; Vandy West, night weaver; Sam Pyle, drawing room; Mr. Bryder, chemist; J. M. Robinette, assistant dyer.

### HOPKINS ROLLER COVERING SHOPS

Our good friend, W. M. Hopkins, proprietor of the above company which bears his name, is a real busy man these days since the mills have begun operations, and says business is improving with him. Saw some mighty fine looking recovered rolls.

### KING COTTON MILLS

This mill is ever on the alert for new market changes and is acting likewise. The overseers as well as Superintendent Fonville were changing a few "yarns" when I walked in on them. Mr. Fonville thinks so well of The Bulletin, he "ponied" over a subscription for a friend away down in Leesburg, Fla., who I trust he will have pleasure in reading news from his old "haunts." The line-up is: Sam White, carder; O. E. Thompson, master mechanic; R. W. Oakley, winder, and W. L. Summers, spinner.

## SWEPSONVILLE, N. C.

### VIRGINIA COTTON MILLS

Leaving Graham I inquired my way here, and I was told "Sweep" was on the left forks, so I don't know if they call it "Sweep" for short or whether they mean that it is "Swepped" often. Found things in mighty fine shape.

Plans are going forward for a minstrel show to be given in the school auditorium the second Saturday in November. Local talent will comprise the cast, made up from members of the Young Men's Club.

The ladies of the Methodist church are busy rehearsing a play to be given shortly. When the feminine set gets behind a thing, you'll generally see something great. Here's luck to you, ladies.

An oyster stew was given Saturday night, October 22nd, at the home of the superintendent. Was a get-together meeting for overseers and fixers. A good time was enjoyed.

The young people of the Baptist church gave a Halloween party last Saturday night. A good time was had by all.

A general course in Textiles, pertaining to fixing, etc., will begin shortly. The superintendent of the mill is leader. The line-up is: J. M. Hopper, overseer weaving; Chas. Veale, master mechanic.

## HAMER, S. C.

### CAROLINA TEXTILE CORP.

This is a few miles from Dillon and the liveliest one of the three plants.

W. R. Estridge, a former overseer, has been promoted to superintendent, and his energy and efficiency is apparent in every department. Uncle Hamp and I have not had a more cordial welcome anywhere than was given us at Hamer by Mr. Estridge and his overseers.

H. V. Deaver, overseer carding, says that this mill began to improve as soon as Mr. Estridge took charge and keeps going up the scale.

Arthur Turner, an ambitious young man with pleasing personality, has been promoted from second hand to overseer of spinning and twisting, and the appearance of his departments is proof of his ability. Altogether, it was one of the nicest little mills we have seen.

We had the pleasure of meeting Mrs. Estridge, too, who is a charming and gracious woman. There are a lot of nice gardens and flowers in the village.

Mrs. Julian Dew is community worker for this and the mills at Dillon. She is deeply interested in promoting the health of the people and the beauty of the villages, and is to be commended upon the success of her endeavors.

## DILLON, S. C.

### CAROLINA TEXTILE CORP.

We found these mills still curtailing. Very little of the machinery in No. 1 was in operation. S. L. Green is superintendent and Murry Mincie, overseer.

At No. 2, things seemed a little better. P. L. West is superintendent; M. C. Ewing, carder; S. A. Jones, spinner; Walter Jackson, twister; W. H. Wallace, master mechanic. Mr. Jones has our sincere thanks for courtesies rendered. Mr. Wallace is another of our loyal friends.



**RUTHERFORDTON, N. C.**

GRACE MILLS CO.

And what a mill! It's not just the mill, it's the fine men that work here under our good friend, R. R. Flack, agent.

Grace Mill is running full blast day and night and turning out some mighty fine goods.

I want to thank every overseer for their kindness in helping me obtain 100 per cent in giving me their subscriptions to The Bulletin. They are: J. W. McGraw, day weaver; S. M. Sheehan, night weaver; J. M. Ross, day spinner; J. W. Baynard, night spinner; J. D. Arrowood, day carder; S. M. Hargett, night carder; C. P. Queen, cloth room, and R. R. Blankenship, master mechanic.

**CEDAR FALLS, N. C.**

SAPONA MILLS

This was my second visit within the year. My first visit found the mills closed and when I went back Mr. Briles, superintendent, told me they had only been in operation two weeks, so if I just expect, "my boss" will send me back later. The overseers are: J. F. Luck, spinner; W. L. Bray, carder; J. H. Allred, master mechanic, and W. T. Wrenn, weaver.

**FRANKLINVILLE, N. C.**

RANDOLPH MILLS CO.

In passing here early in the summer I did not find our good friend, President John W. Clark (brother to our Mr. David Clark), but had the pleasure of seeing him in Greenville last week, and was invited to come back; so I came and not every overseer on the subscription list. Mr. McCombs couldn't wait for us and sent his renewal ahead. Randolph Mills are running full time with plenty of help. The overseers are: S. T. Batten, carder and spinner; G. H. Jones, spinner; J. O. York, weaver; C. Parks, cloth room; S. C. Trogden, bleaching machinist, and H. B. Buie, power engineer. Thanks all of you for your courtesies.

**SENECA, S. C.**

LONSDALE CO. OF R. I. (Seneca Plant)

Thank you, Mr. Humbert, manager, for the nice list of subscriptions given me on my recent visit with you. Hope you thoroughly enjoyed the Greenville show. We did. C. M. Padgett is superintendent of this pretty mill.

**NEWTON, N. C.**

CITY COTTON MILLS

One new napper has been installed here and a building is being erected for another. Mr. Gaither has been with this mill since its erection in 1920. We did not get to meet him but we did meet Mr. M. D. Sides, the pleasant superintendent. This mill is operating day and night shifts full time. Marsh Thornburg, day weaver; M. D.

Thornburg, night weaver; Lester Yancey, day spinner; Taylor Benfield, day carder; Roy McGee, night carder and spinner; T. C. Bright, master mechanic.

**GLEN RAVEN, N. C.**

GLEN RAVEN COTTON MILLS

This is where the famous Vivatone Awnings are made—the only mill of its kind in the South, and Superintendent Thompson is very much enthused over the quality of his products. We can't blame him for feeling so. Season for this class of work is nearly over, but should the market demand, Mr. Thompson is ready on a moment's notice. The material made here is shrunk to fit both sides alike. J. Bassette is carder and spinner; U. S. Lowe, weaver, beaming and slashing; Wm. Fickle, dyer; W. S. McIntyre, master mechanic, and Geo. Rumley, cloth room.

**WALHALLA, S. C.**

KENNETH COTTON MILLS

Found this mill running along nicely with J. R. Clark, superintendent, holding things down. Overseers are W. C. Kilpatrick, weaver; A. C. Ronda, spinner; J. C. Roach, carder; W. T. Scott, master mechanic, and C. F. Rochester, cloth room.

VICTOR-MONAGHAN Co. (Walhalla Plant)

Our old friend and well-wisher, W. P. Leister, superintendent, always lends a helping hand, and offers free reign to anyone connected with The Bulletin. He's been a subscriber for years and says it's the paper of his choice. He has a mighty fine set of overseers working for him, and they hold him in highest esteem.

**"Aunt Becky" Has a Rival But Is Pleased Instead Of Jealous**

No, not a rival for "Uncle Hamp's" affection, but a rival pen pusher—that baby boy of mine, Ben C., who is traveling and writing for the Southern Textile Bulletin.

Have always hoped that one of my children would take up my work and I am happy to see that it comes naturally to Ben, and that he is making friends among the mills. His sunny disposition will endear him to all. He has written quite a lot in this department recently, but refuses to sign his name.

My other son, Cecil V., now overseer weaving at one of the mills at Rhodhiss, is just as fine in his line, and it goes without saying that I am proud of my boys. I saw Cecil recently and he said:

"Mother, that fine mountain air around Rhodhiss is working wonders with me. I just know I'm going to have a bay window; I feel it coming on!"

**Life's Test**

There's only one method of meeting life's test;  
Jes' keep on a-strivin', and hope for the best;  
Don't give up the ship and quit in dismay,  
'Cause hammers are thrown when you'd like a bouquet.  
The world would be tiresome, we'd all get the blues  
If all the folks in it held just the same views;  
So finish your work, show the best of your skill,  
Some folks won't like it, but other folks will.

## CLASSIFIED ADS.

### Wants Good Machinery Account

Reliable sales organization in South will consider agency for machinery or equipment account which does not conflict with present lines. Commission basis with moderate drawing account. Wide personal acquaintanceship with mill officials and operating executives. Address M. F. H., care Southern Textile Bulletin.

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### WANTED Mill Supply Accounts

Young man well known among the textile mills desires several good mill supply accounts. Would like to hear from any V-Belt, Fibre Specialties, Heddles and Drop Wire manufacturers or any firms not having Southern representation that would like to have some one handle their accounts. Address W. F. J., care Southern Textile Bulletin.

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## Apparel Lines Gain

Sound gains in the clothing, textile and shoe industries, responsible for a notable part of the general business improvement this Fall, are attributed to the approximate completion of the needed deflation in prices, according to the Business Conditions Weekly of the Alexander Hamilton Institute. The implication is that price levels in apparel lines have fallen at least as low as that of all manufactured goods, the index of which is 70, as against the 1926 base of 100. By contrast, the index of steel prices is 80; building prices, 80; automobile prices, 93; railroad freight rates, 100; and taxes, 130. From which the Institute concludes:

"The apparel and textile industry cannot expect to escape a set-back while readjustments outside the industry remain uncompleted and full restoration of the purchasing power of consumers consequently continues to be held in check. It is encouraging, however, to know that there is one major industry which is no longer retarding but is in a position to support a genuine recovery of general business."

## Virginia's Rayon Capacity Set At 41,500,000 Lbs.

Richmond, Va.—A survey of the rayon industry in Virginia conducted by Clarence W. Newman, statistician for the State chamber of commerce, shows, according to his report, increased activity at practically all the mills, with sufficient orders on hand to justify operation for some time to come on an increased employment basis. The plants have an estimated capacity of 41,500,000 pounds annually, or more than 25 per cent of the capacity of the country.

"There is substantial basis for the belief," Mr. Newman goes on to say in his record, "that the Virginia region will experience important further expansion in rayon-productive capacity as time goes on, alike through the extension of existing plants and through the establishment of new ones."

## Mill Hands Work On Farm

Gastonia, N. C.—The employes of the Osceola Mills, Inc., plants No. 1 and No. 2, who have been out of work since the closing of the plant on April 10, and prior to that time had operated on a curtailed schedule, are working on the farm owned and operated by the mills.



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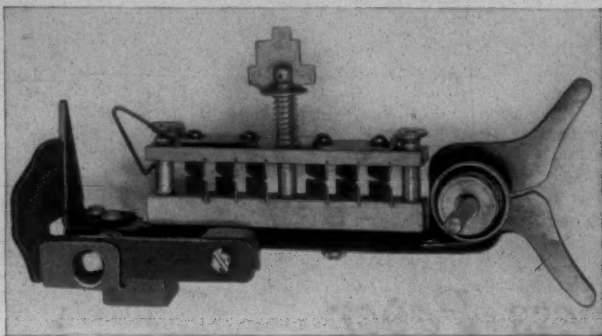
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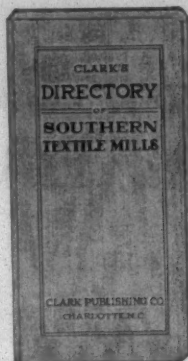
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